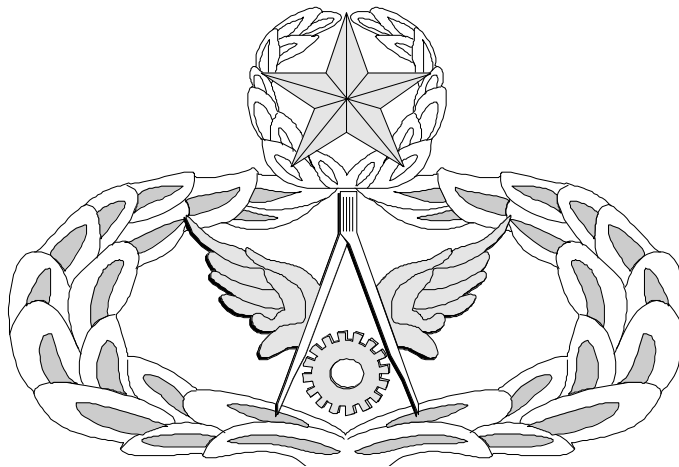


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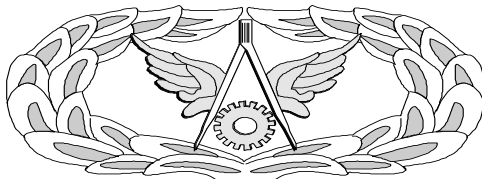
CFETP 3E0X2
Parts I and II
30 November 2008

AFSC 3E0X2

ELECTRICAL POWER PRODUCTION



MASTER



BASIC



SENIOR

CAREER FIELD
EDUCATION AND TRAINING PLAN

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CAREER FIELD EDUCATION AND TRAINING PLAN
ELECTRICAL POWER PRODUCTION SPECIALTY

AFSC 3E0X2

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PREFACE

1. This Career Field Education and Training Plan (CFETP) is a comprehensive education and training document that identifies life-cycle education/training requirements, training support resources, and minimum core task requirements for this specialty. The CFETP will provide personnel a clear career path to success and instill rigor in all aspects of career field training.

2. The CFETP consists of two parts used by supervisors to plan, manage, and control training within the career field.

2.1. Part I provides information necessary for overall management of the specialty.

2.1.1. Section A provides general information about how the CFETP will be used.

2.1.2. Section B identifies career field progression information, duties and responsibilities, training strategies, and career field path.

2.1.3. Section C associates each skill level with specialty qualifications (knowledge, education, and training).

2.1.4. Section D indicates resource constraints.

2.1.5. Section E identifies transition training guide requirements for SSgt through MSgt.

2.2. Part II includes the following:

2.2.1. Section A identifies the Specialty Training Standard (STS) to include duties, tasks, and technical references to support Air Education and Training Command (AETC)-conducted training, war time course, and correspondence course requirements.

2.2.2. Section B is optional. If used, it contains the course objective list and training standards supervisors will use to determine if Airmen satisfy training requirements.

2.2.3. Section C identifies available support materials. Air Force Qualification Training Packages (AFQTPs) and CerTests support both Upgrade Training (UGT) and qualification training.

2.2.4. Section D identifies a training course index supervisors can use to determine resources available to support training. Included here are both mandatory and optional courses, and exportable courseware.

2.2.5. Section E identifies MAJCOM-unique training requirements supervisors can use to determine additional training required for the associated qualification needs.

2.2.6. Section F identifies home station training references and courses material required for this specialty in support of contingency and war time training.

3. Using guidance provided in the CFETP will ensure individuals in this specialty receive effective and efficient training at the appropriate point in their careers. This plan will enable us to train today's work force for tomorrow's jobs in the expeditionary Air Force. At unit level, supervisors and trainers will use Part II to identify, plan, and conduct training commensurate with the overall goals of this guide.

ABBREVIATIONS/TERMS EXPLAINED

Advanced Distributive Learning (ADL). Anytime, anywhere learning within DoD consisting of instructional modules comprised of sharable content objectives in an Internet/Intranet environment.

Advanced Training (AT). A formal course which provides individuals who are qualified in one or more positions of their Air Force Specialty (AFS) with additional skills/knowledge to enhance their expertise in the career field. Training is for selected career airmen at the advanced level of the AFS.

Air Force Career Field Manager (AFCFM). An individual on the Air Staff charged with the responsibility for overseeing all training and career field management aspects of an Air Force specialty or group of specialties.

Air Force Job Qualification Standard/Command Job Qualification Standard (AFJQS/CJQS). A comprehensive task list that describes a particular job type or duty position. Used by supervisors to document task qualifications. The tasks on the AFJQS/CJQS are common to all persons serving in the described duty position.

Air Force Qualification Training Package (AFQTP). An instructional package designed for use at the unit to qualify, or aid qualification, in a duty position or program, or on a piece of equipment. AFQTPs identify the Air Force's standardized method for performing the task. The AFQTP may be printed (paper-based), computer-based, or in other audiovisual media.

Air Force Training Record (AFTR). A web-based electronic training record used to track an individual's training requirements.

Basic Expeditionary Airfield Resources (BEAR) – Facilities, equipment, and basic infrastructure to support the beddown of deployed forces and aircraft at austere locations; a critical capability to fielding expeditionary aerospace forces. Resources include tents, field kitchens, latrine systems, shop equipment, electrical and power systems, runway systems, aircraft shelters and water systems needed to sustain operations.

Career Field Education and Training Plan (CFETP). A comprehensive, multi-purpose document encapsulating the entire spectrum of education and training for a career field. It outlines a logical growth plan that includes training resources and is designed to make career field training identifiable, to eliminate duplication, and to ensure this training is budget defensible.

Certification and Testing (CerTest). A multi-media evaluation program used to test an individual's knowledge of principles and procedures in their career field.

Commercial Off The Shelf (COTS). Commercially-procured training products.

Computer-Based Training (CBT). A self-paced stand-alone computer product used to deliver interactive subject and task knowledge.

Continuation Training. Additional training exceeding requirements with emphasis on present and future duty assignments.

Core Task. A task Air Force Career Field Managers (AFCFMs) identified as a minimum qualification requirement within an Air Force specialty or duty position. These tasks exemplify the essence of the career field.

Course Objective List (COL). A publication derived from initial/advanced skills course training standard, identifying the tasks and knowledge requirements, and respective standards provided to achieve a 3-, 5-, and 7-skill level in this career field. Supervisors use the COL to assist in conducting graduate evaluations in accordance with AFI 36-2201, *AF Training Program*.

Critical Task. Tasks that have been identified by the work center supervisor as having a detrimental effect on mission accomplishment if not performed correctly. Critical tasks may or may not be the same as core tasks but are mandatory if identified as ‘critical’ to the individual’s position by the supervisor or work center.

Diamond Tasks (◆). Diamond tasks are extremely important to the career field. Diamond tasks are the same as core tasks with one exception--equipment shortfalls at most locations have created problems with the actual hands-on certification of these tasks. In instances where required equipment is not available for instruction, completion of the task’s AFQTP and passing the corresponding CerTest is all that is required for upgrade training. Hands-on certification shall be accomplished at the first opportunity when equipment is available.

Distance Learning (DL). Includes Video Teleseminar (VTS), Video Teletraining (VTT), and Computer-Based Training (CBT). Formal courses that a training wing or a contractor develops for export to a field location (in place of resident training) for trainees to complete without the on-site support of the formal school instructor. For instance, courses are offered by Air Force Institute of Technology, Air University, and Training Detachment.

Duty Position Task. The tasks assigned to an individual for the position currently held. These include as a minimum all core tasks, critical tasks, and any other tasks assigned by the supervisor.

Enlisted Specialty Training (EST). A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade airmen in each skill level of a specialty.

Exportable Training. Additional training via computer-assisted, paper text, interactive video, or other necessary means to supplement training.

Field Technical Training (Type 4). Special or regular on-site training conducted by a Field Training Detachment (FTD).

Initial Skills Training. AFS-specific training an individual receives upon entry into the Air Force or upon retraining into this specialty for award of the 3-skill level. Normally, this training is conducted by AETC at one of the technical training wings.

Mobile Training Team (MTT) (Type 7). On-site equipment training conducted by AETC instructors at various host bases.

Instructional System Development (ISD). A deliberate and orderly, but flexible, process for planning, developing, implementing, and managing instructional systems. It ensures personnel are taught in a cost-efficient way the knowledge, skills, and attitudes essential for successful job performance.

Just in-time Training. Training required just prior to a select deployment that delivers training necessary for mission accomplishment. It is typically predicated on hard to attain contingency skills.

Learning Management System (LMS). An automated web-based distributive learning system that delivers standard knowledge-based material to personnel, allowing for academic self-paced learning and providing the ability to access material anytime and anywhere.

MAJCOM Functional Manager (MFM). Senior leaders, designated by the appropriate functional authority (FA) who provide day-to-day management and responsibility over specific functional communities at the MAJCOM, FOA, DRU, or ARC level. While they should maintain and institutional focus in regards to resource deployment and distribution, FMs are responsible for ensuring their specialties are equipped, developed, and sustained to meet future needs of the total Air Force mission.

Mobile Training Team (MTT) (Type 7). On-site training conducted by AETC instructors at various host bases all over the world.

Occupational Survey Report (OSR). A detailed report showing the results of an occupational survey of tasks performed within a particular AFS.

On-the-Job Training (OJT). Hands-on, over-the-shoulder training conducted to certify personnel in both upgrade (skill-level award) and job qualification (duty position certification) training.

Optimal Training. The ideal combination of training settings resulting in the highest levels of proficiency on specified performance requirements within the minimum time possible.

Proficiency Training. Additional training, either in-residence, exportable advanced training courses, or on-the-job training provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade.

Qualification Training (QT). Actual hands-on task performance training designed to qualify an individual in a specific duty position. This portion of the dual channel on-the-job training program occurs both during and after the upgrade training process. It is designed to provide the performance skills required to do the job.

Readiness Training Package (RTP). Establishes standard levels of knowledge and proficiency for common Disaster Preparedness and Readiness subject areas by providing instructors with training references, materials, and lesson objectives used in teaching and evaluating the course subject matter.

Resource Constraints. Resource deficiencies, such as money, facilities, time, manpower, or equipment that preclude desired training from being delivered.

Skills Training. A formal course resulting in the award of a skill level.

Specialty Training. A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade Airmen in the award of a skill level.

Specialty Training Standard (STS). Describes skills and knowledge that Airmen in a particular AFS need on the job. It further serves as a contract between the Air Education and Training Command (AETC) and the user to show the overall training requirements for an AFS taught in the resident and nonresident courses.

Standard. An exact value, a physical entity, or an abstract concept, established and defined by authority, custom, or common consent to serve as a reference, model, or rule in measuring quantities or qualities, establishing practices or procedures, or evaluating results; a fixed quantity or quality.

Supplemental Training. Training for a portion of an AFS without a change in AFSC. Formal training on new equipment, methods, and technology that are not suited for on-the-job training.

Total Force. All collective Air Force components (active duty, Reserve, Guard, and civilian elements) of the United States Air Force.

Training Capacity. The capability of a training setting to provide training on specified requirements, based on the availability of resources.

Training Planning Team (TPT). Comprised of the same personnel as a U&TW; however, TPTs are more intimately involved in training development and the range of issues is greater than is normal in the U&TW forum.

Training Requirements Analysis. A detailed analysis of tasks for a particular AFS to be included in the training decision process.

Upgrade Training (UGT). Identifies the mandatory courses, task qualification requirements, and correspondence course completion requirements for award of the 5-, 7-, and 9-skill levels.

Utilization and Training Workshop (U&TW). A forum of the Air Force Career Field Managers (AFCFM), MAJCOM Functional Managers (MFM), subject matter experts (SMEs), and AETC training personnel that determine career ladder training requirements

PART I

SECTION A - GENERAL INFORMATION

1. Purpose. This CFETP provides information necessary for the Air Force Career Field Managers (AFCFMs), MAJCOM Functional Managers (MFMs), commanders, education and training managers, supervisors/trainer, and certifiers to plan, develop, manage, and conduct an effective career field training program. This plan outlines the training individuals require to develop and progress throughout their careers. It identifies initial skills, upgrade, qualification, advanced, and proficiency training.

1.1. Initial skills training. Is the AFS-specific training an individual receives upon entry into the Air Force or upon retraining into this specialty for award of the 3-skill level. Normally, this training is conducted by AETC at one of the technical training wings.

1.2. Upgrade training. Identifies the mandatory courses, task qualification requirements, and correspondence course completion requirements for award of the 5-, 7-, and 9-skill levels.

1.3. Qualification training. Is actual hands-on task performance training designed to qualify an airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills/knowledge required to do the job.

1.4. Advanced training. Is a formal course that provides individuals who are qualified in one or more positions of their Air Force Specialty (AFS) with additional skills/knowledge to enhance their expertise in the career field. Training is for selected career airmen at the advanced level of the AFS.

1.5. Proficiency training. Is additional training, either in-residence, exportable advanced training courses, or on-the-job training, provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade.

2. The CFETP has several purposes:

2.1. Serves as a management tool to plan, manage, conduct, and evaluate a career field training program. It is used to help supervisors identify training at the appropriate point in an individual's career.

2.2. Identifies task and knowledge training requirements for each skill level in the specialty and recommends education/training throughout each phase of an individual's career.

2.3. Lists training courses available in the specialty and identifies sources of training and training delivery methods.

2.4. Identifies major resource constraints that impact full implementation of the desired career field training process.

3. Uses. MFM and supervisors will use the plan at all levels to ensure comprehensive and cohesive training programs are available for each individual in the specialty.

3.1. AETC training personnel will develop/revise formal resident, nonresident, field, and exportable training based on requirements established by the users and documented in Part II of the CFETP. They will also work with the AFCFM, Air Force Civil Engineer Support Agency Force Development Division (HQ AFCESA/CEOF) to develop acquisition strategies for obtaining resources needed to provide the identified training.

3.2. MFM will ensure their training programs complement CFETP mandatory initial, upgrade, and proficiency requirements and identify requirements that can be satisfied by OJT, resident training, contract training, CerTest, exportable, Advanced Distributive Learning (ADL), or Distance Learning (DL) courses. MAJCOM-developed training to support this AFS must be identified for inclusion into the plan.

3.3. Unit Education and Training managers and supervisors must ensure each individual completes the mandatory training requirements (including MAJCOM supplemental requirements) for the upgrade training specified in this plan.

3.4. Each individual will complete the mandatory training requirements specified in this plan. The lists of courses in Part II in this CFETP will be used as a reference to support training.

4. Coordination and Approval. The AFCFM is the approval authority for the CFETP. MAJCOM representatives and AETC personnel identify and coordinate on the career field training requirements. The AETC training manager for this specialty will initiate an annual review of this document by AETC and MFM to ensure currency and accuracy. Using the list of courses in Part II, they will eliminate duplicate training.

SECTION B - CAREER FIELD PROGRESSION AND INFORMATION

5. Specialty Descriptions. Electrical Power Production Apprentice, Journeyman, Craftsman, and Superintendent.

5.1. Installs, removes, operates, maintains, and repairs electrical power generating equipment and control systems, aircraft arresting systems, and associated equipment. Related DoD Occupational Subgroup: 662.

5.2. Duties and Responsibilities for Apprentice, Journeyman, and Craftsman.

5.2.1. Installs and operates Electrical Power Production systems and equipment.

5.2.1.1. Installs, removes, operates, maintains and repairs electrical power generating and control systems, aircraft arresting systems, and associated equipment.

5.2.1.2. Checks equipment for serviceability.

5.2.1.3. Positions equipment such as gasoline and diesel engines, generators, switchgears, air compressors, and other power generating auxiliary equipment.

5.2.1.4. Installs, positions, rewinds, and pre-tensions aircraft arresting systems.

5.2.1.5. Certifies aircraft arresting systems as required.

5.2.1.6. Checks installed equipment to ensure compliance with publications, policies, and directives.

5.2.1.7. Inspects, tests, and services components systems such as safety, fuel, lubrication, cooling, air pressure, pumps, regulators, governors, and accessory equipment.

5.2.1.8. Observes and interprets instruments such as ammeters, voltmeters, frequency meters, synchroscopes, automatic temperature and pressure recorders, and engine oil, fuel, and coolant gauges.

5.2.1.9. Adjusts engine generator systems to maintain proper voltage, current frequency, and synchronization. Operates high and low voltage switches, circuit breakers, rheostats and other controls on switchgear and distribution panels.

5.2.1.10. Performs electrical power and distribution functions.

5.2.2. Maintains, modifies, and repairs electric power generating and control systems, automatic transfer switches, aircraft arresting systems, and associated equipment.

5.2.2.1. Performs inspections, and interprets findings to determine corrective actions.

5.2.2.2. Identifies and documents engine and generator malfunctions.

5.2.2.3. Uses precision test equipment, troubleshoots malfunctions, and inspects parts for excessive wear and other conditions.

5.2.2.4. Removes, repairs, and replaces defective power generating components.

5.2.2.5. Performs corrosion control.

5.2.2.6. Inspects and replaces gauges and meters.

5.2.2.7. Maintains aircraft arresting systems including electrical, hydraulic, rewind, and pneumatic components.

5.2.2.8. Bench checks components and subassemblies.

5.2.2.9. Tests and calibrates repaired items.

5.2.2.10. Reviews performance data and maintenance records to determine adequacy of maintenance.

5.2.2.11. Interprets data related to electrical power generating and aircraft arresting systems to ensure overall mission success.

5.2.3. Reviews and advises on projects associated with electrical power generating and control systems, automatic transfer switches, aircraft arresting systems and associated equipment.

5.2.3.1. Reviews layout drawings and wiring diagrams.

5.2.3.2. Ensures new construction meets proper operating characteristics of equipment.

5.2.3.3. Establishes maintenance and operating procedures to ensure maximum efficiency.

5.2.3.4. Ensures new construction meets proper operating characteristics of equipment.

5.2.4. Maintains records.

5.2.4.1. Posts entries on operation, inspection, and maintenance records.

5.2.4.2. Records meter reading, wear and alignment measurements, fuel consumption, and other data in performance logs.

5.2.4.3. Furnishes information for reports and recommends changes to correct defective equipment or improve operating procedures.

5.2.4.4. Applies engineered performance standards to plan and estimate jobs.

5.2.4.5. Coordinates plans with other civil engineer and base agencies.

5.2.4.6. Records meter readings, wear and alignment measurements, fuel consumption, and other data in performance logs.

5.2.4.7. Furnishes information for reports and recommends changes to correct defective equipment or improve operating procedures.

5.2.4.8. Applies engineered performance standards to plan and estimate jobs.

5.2.4.9. Inspects work activities to ensure quality and compliance with policies, regulations, and other publications.

5.2.4.10. Complies with environmental policies.

5.2.4.11. Supervises and manages personnel and resources.

5.2.5. Performs inspection activities.

5.2.5.1. Attends site visits.

5.2.5.2. Performs pre-acceptance inspections of power production systems.

5.3. Duties and Responsibilities for Superintendent. Manages resources and activities devoted to installation, operation, maintenance, and repair of high and low voltage power distribution systems, electrical power-generating and control systems, fire alarms, airfield lighting systems, and aircraft arresting systems. Related DoD Occupational Subgroup: 721.

5.3.1. Plans and organizes electrical activities.

5.3.1.1. Programs and coordinates electrical power outages, maintenance, and repair requirements with users.

5.3.1.2. Performs planning activities and facility surveys. Determines resources requirements by conducting on-site investigations of proposed work.

5.3.1.3. Prepares cost estimates for in-service work requests.

5.3.1.4. Applies engineered performance standards in planning and estimating jobs.

5.3.1.5. Coordinates plans with civil engineering and other agencies as required.

5.3.2. Manages functions in electrical systems and power production activities.

5.3.2.1. Directs the installation, removal, operation, maintenance, and repair of electrical power distribution systems, above and below 600 volts and electrical power generating and control systems activities including overhead and underground distribution systems, power plant operations, fire alarms, airfield lighting systems, and aircraft arresting systems.

5.3.2.2. Identifies and controls requisitioning of systems, parts, fuels, lubricants, bench stock, and technical publications.

5.3.2.3. Ensures productivity and work compliance.

5.3.2.4. Monitors electrical generating unit records and analyzes for organization, intermediate, or depot level maintenance, and preparation of maintenance forms, reports, and records.

5.3.2.5. Issues and logs safe clearance procedures for all crafts that maintain electrical systems and power production equipment.

5.3.2.6. Ensures compliance with environmental and safety regulations and practices.

5.3.3. Inspects and evaluates electrical systems and power production activities to ensure compliance with policies and regulations.

5.3.3.1. Assists in solving maintenance, supply, and personnel problems.

5.3.3.2. Interprets inspection findings and initiates corrective action.

5.3.3.3. Ensures certification of personnel as required.

6. Skill/Career Progression. Adequate training and timely progression from the apprentice to the superintendent skill level play an important role in the Air Force's ability to accomplish its mission. It is essential that everyone involved in training do his or her part to plan, manage, and

conduct an effective training program. The guidance provided in this part of the CFETP will ensure individuals receive viable training at appropriate points in their careers.

6.1. Apprentice (3-Level)

6.1.1. Upon completion of initial skills training, a trainee will work with a trainer to enhance their knowledge and skills to progress to 5-Level.

6.1.2 Complete CE Common Core Distance Learning product prior to ordering CDCs.

6.1.3. Utilize the Career Development Course (CDC), Air Force Qualification Training Packages (AFQTPs) and other exportable courses for subject and task fundamentals in the career field. Successfully complete applicable web-based QTPs with corresponding CerTests.

6.1.4. Once trained and task certified, a trainee may perform the task unsupervised.

6.1.5. After all upgrade training requirements are completed, supervisors and Unit Education and Training Managers (UETMs) coordinate upgrade procedures.

6.1.6. NOTE: All trainees are automatically enrolled in the Community College of the Air Force (CCAF) when awarded their primary AFSC.

6.2. Journeyman (5-Level)

6.2.1. Enter into continuation training to broaden experience base

6.2.2. Five-levels may be assigned job positions such as team leader and shift supervisor.

6.2.3. Will attend the Airman Leadership School (ALS) after serving 48 months in the Air Force (active duty only). Either the resident or correspondence course is required for Air National Guard/Air Force Reserve Command (ANG/AFRC) personnel

6.2.4. Will use CDCs and other reference material to prepare for Weighted Airman Performance Systems (WAPS) testing

6.2.5. Should continue pursuing a CCAF degree.

6.2.6. After all upgrade training requirements are complete, supervisors and UETMs coordinate upgrade procedures.

6.3. Craftsman (7-Level)

6.3.1. Completion of 100% 7-level core/diamond tasks, completion of the 7-level resident course, and completion of the CE Common Core 7-level DL product are the basic prerequisites for seven skill level award.

6.3.2. A craftsman may expect to fill various supervisory and management positions such as shift leader, mobility team chief, production supervisor, or task certifier.

6.3.3. Seven-levels should take continuation training courses or obtain additional knowledge on management of resources and personnel.

6.3.4. Continued academic education through CCAF and higher degree programs is encouraged.

6.3.5. Will attend the Noncommissioned Officer Academy (NCOA) after promotion to TSgt (active duty only). Either the in-residence or the correspondence course is required for ANG/AFR personnel.

6.3.6. After all upgrade training requirements are complete, supervisors and UETMs coordinate upgrade procedures.

6.4. Superintendent (9-Level)

6.4.1. Must be a SMSgt for award of the 9-skill level.

6.4.2. A 9-level fills positions such as flight chief, zone superintendents, and various staff positions.

6.4.3. Should pursue increased knowledge of resources, budget, manpower, and personnel management.

6.4.4. Recommend the pursuit of additional higher education and completion of courses outside of their career AFS.

6.4.5. Completion of the Civil Engineer Superintendent Course (AFIT WMGT 570) is highly recommended.

6.4.6. Will attend the Senior Noncommissioned Officer Academy (SNCOA) after selection for promotion to SMSgt (active duty only). A percentage of top non-selects (for promotion to E-8) MSgts attend SNCOA each year. Either the in-residence or the correspondence course is required for Air Force Reserve and Air National Guard personnel.

6.5. Civil Engineer Manager

6.5.1. Must be selected for CMSgt and possess qualifications in a feeder specialty (3E090, 3E191, 3E291, 3E391, 3E490, 3E591, or 3E691).

6.5.2. Will work in a variety of similar jobs and functional areas where general managerial and supervisory abilities are most effectively used and challenged.

6.5.3. Resident graduation of the USAF Senior NCO Academy (SNCOA) is a prerequisite for CMSgt sew-on (active duty only). In residence or correspondence course required for Air Force Reserve and Air National Guard personnel.

6.5.4. Completion of the Chief Leadership Course is mandatory. This course is the final level of enlisted PME

7. Training Decisions. The CFETP uses a building block approach (simple to complex) to encompass the entire spectrum of training requirements for the Electrical Power Production career field. The spectrum includes a strategy for when, where, and how to meet the training requirements. The strategy must be apparent and affordable to reduce duplication of training and eliminate a disjointed approach to training. The following decisions were made at the 3E0X2 Utilization and Training Workshop (U&TW) held at Sheppard AFB TX in April 2005.

7.1. Initial Skills Training. The initial skills course was reviewed for content. Additions, deletions, and modifications were made to the course. Wartime and contingency training were identified.

7.2. Five-Level Upgrade Training Requirements. The requirements for 5-skill level were reviewed and changes were made to reflect the skills required to meet the AF mission. Requirements were based upon the Occupational Survey Report data and the recommendations of the attending subject matter experts (SMEs). Existing CDC requirements were updated

7.3. Seven-Level Upgrade Training Requirements. Seven-level training requirements were reviewed. An AFSC-specific resident 7-level course was to be developed. However, the project was not approved due to insufficient TDY funds availability.

7.4. Proficiency Training

7.4.1. Any additional knowledge and skill requirements that were not taught through initial skills or upgrade training are assigned as continuation training.

7.4.2. Purpose of continuation training is to provide training exceeding minimum upgrade training requirements with emphasis on present and future duty positions.

7.4.3. MAJCOMs must develop a continuation-training program that ensures individuals in the Electrical Power Production career field receive the necessary training at the appropriate point in their careers.

7.4.4. The training program identifies mandatory and optional training requirements.

7.5. Supplemental Training. Electrical Power Production SMEs and the U&TW representatives reviewed supplemental training courses for technical accuracy and identified training that was no longer required. The voting members elected to delete the CE Advanced Electronics Course, J3AZR3E072 013. They revalidated the remaining courses as necessary to fully support career progression in the AFS.

8. Community College of the Air Force (CCAF) Academic Programs. Airmen are automatically enrolled in CCAF when awarded their primary AFSC. CCAF provides the opportunity to obtain an Associate in Applied Sciences Degree. In addition to its associate degree program, CCAF offers the following:

8.1. Occupational Instructor Certification. The instructor must be a full-time instructor teaching a CCAF course at the time of nomination. Additionally, instructors should: hold an associate or higher degree from a degree-granting institution that is accredited in accordance with CCAF requirements, complete a teaching practicum course of at least 5 semester hours credit, complete an instructor-training course of at least 3 semester hours and have two years of experience as a CCAF instructor, hold the journeyman (5-skill level) or higher (or fully qualified equivalent) in an AFS, be recommended for certification by the affiliate school commander, commandant, or equivalent designated representative.

8.2. Trade Skill Certification. When a CCAF student separates or retires, a trade skill certification is awarded for the primary occupational specialty. The college uses a competency-based assessment process for trade skill certification at one of four proficiency levels: Apprentice, Journeyman, Craftsman/Supervisor, or Master Craftsman/Manager. All are transcribed on the CCAF transcript

8.3. The Mechanical and Electrical Technology Associate Degree (4VGA) applies to AFSC 3E0X2.

8.3.1. Degree Requirements. Prior to completing an Associate Degree, the individual must be awarded a 5-level and the following requirements must be met:

Course	Semester Hours
Technical Education	24
Leadership, Management, and Military Studies	6
Physical Education	4
General Education	15
Program Elective	15
Technical Education; Leadership, Management, and Military Studies; or General Education	
Total	64

8.3.2. Technical Education. (24 Semester Hours) A minimum of 12 semester hours of Technical Core subjects/courses must be applied and the remaining semester hours applied from Technical Core/Technical Elective courses.

Technical Core Requirements	Semester Hours
CCAF Internship	18
Electrical Power Production	20
Electrical Systems	20
Heating Systems	20
Refrigeration and Air Conditioning	20

Technical Electives	Semester Hours
AF Enlisted Professional Military Education	12
Air Distribution and Filtering Systems	3
Alternate Heating and Cooling	3
Blueprint Reading/Schematic Diagrams	6
Building Codes and Ordinance	3
Computer Science	6
Control Systems/Maintenance	6
Electronics	9
Engine Principles	3
Environmental Awareness	3
Environmental Compliance	3
Industrial Management	3
Industrial Safety	3
Motor, Starter, and Control Devices	6
Quality Assurance	3
Technical Mathematics (College Algebra or higher)	3
Technical Physics	4
Technical Writing	3
Welding and Pipefitting	3

8.3.2. Leadership, Management, and Military Studies (6 Semester Hours). Professional military education and civilian management courses accepted in transfer. Credit is also earned by testing.

8.3.3. Physical Education (4 Semester Hours). This requirement is satisfied by completion of PHE 1000, Basic Training.

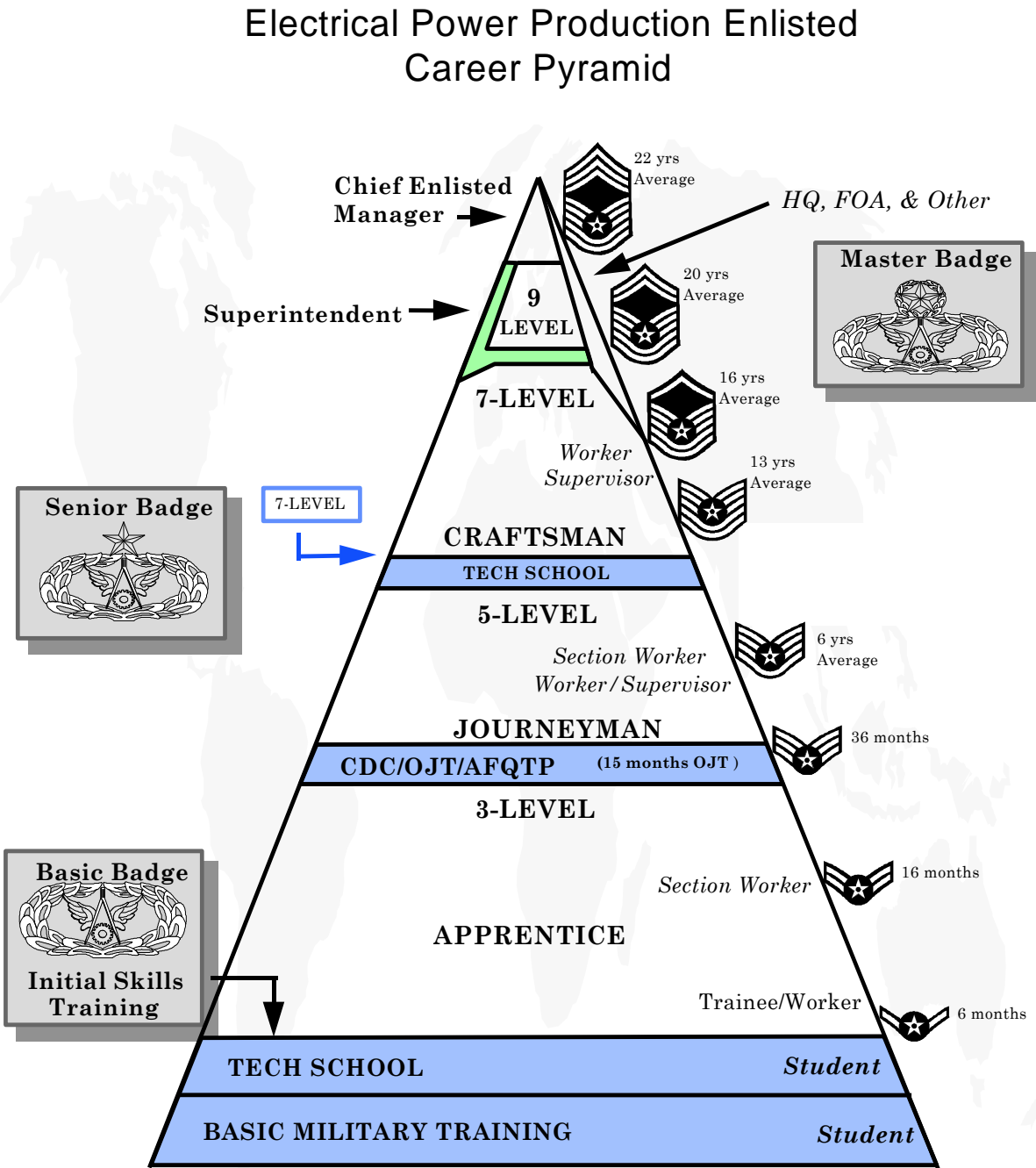
8.3.5. General Education (15 Semester Hours). Applicable courses must meet the criteria for application of courses to the General Education Requirements (GER) and be in agreement with the definitions of applicable general education subjects/courses as provided in the CCAF General Catalog.

General Education	Semester Hours
Oral Communication Speech	3
Written Communication English Composition	3
Mathematics An intermediate algebra or a college-level mathematics course that satisfies the delivering institution's mathematics requirement for graduation. If an acceptable mathematics course is applied as a Technical or Program Elective, a natural science course may be substituted for mathematics.	3
Social Science Anthropology, Archaeology, Economics, Geography, Government, History, Political Science, Psychology, Sociology	3
Humanities Fine Arts (criticism, appreciation, historical significance), foreign language, literature, philosophy, religion	3

8.3.6. Program Elective (15 Semester Hours). Courses applying to technical education, LMMS or general education requirements; natural science courses meeting general education requirement application criteria; foreign language credit earned at Defense Language Institute or through the Defense Language Proficiency Test; maximum 6 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of enrollment .

9. Additional off-duty education is a personal choice that is encouraged for all. Individuals desiring to become an AETC Instructor should actively pursue an Associate Degree. A qualified faculty is necessary to maintain accreditation through the Southern Association of Colleges and Schools.

10. Career Field Path. The following chart depicts the 3E0X2 specialty's career path:



10.1. Enlisted Career Path

Table: Enlisted Career Path				
Education and Training Requirements	Rank	Average Sew-On	Earliest Sew-On	High Year of Tenure (HYT)
Basic Military Training school				
Apprentice Technical School (3-Skill Level) - Must complete CE Common Core 3-level DL	Amn A1C	6 months 16 months		
Upgrade To Journeyman (5-Skill Level) - Complete all core and duty-related tasks identified in CFETP. - Minimum 15 months on-the-job training (9 months for retrainees) - Complete appropriate CDC if/when available.	SrA	3 years	28 months (22months BTZ)	12 Years
Airman Leadership School (ALS) - Must be a SrA with 48 months time in service or be a SSgt selectee. - Resident graduation is a prerequisite for SSgt sew-on (active duty only).	<u>Trainer</u> - Trainer must be qualified and certified on tasks to be trained. - Must attend Formal AF Training Course. - Must be recommended by the supervisor.			
Upgrade To Craftsman (7-Skill Level) - Complete all core and duty-related tasks identified in CFETP - Minimum rank of SSgt - 12 months OJT (6 months in grade for re-trainees) -Complete 7-level resident course -Must complete CE Common Core 7-level DL product.	SSgt	6 years	3 years	20 Years
Retrainee - Minimum 9 months for 5-level - Minimum 6 months for 7-level UGT	<u>Certifier</u> - SSgt with 5-skill level or civilian equivalent - Attend Formal AF Training Course. - Be a person other than the trainer (for core and critical tasks only). - Must be capable of evaluation the task being certified.			
Noncommissioned Officer Academy (NCOA) - Must be a TSgt or TSgt selectee - Resident graduation is a prerequisite for MSgt sew-on (Active Duty Only).	TSgt	12 years	5 years	24 Years
	MSgt	16 years	8 years	26 Years

USAF Senior NCO Academy - Must be a SMSgt or SMSgt selectee. - Resident graduation is a prerequisite for CMSgt sew-on (active duty only). - A percentage of top non-selects (for promotion to E-8) MSgts attend the SNCOA each year. Upgrade To Superintendent (9-Skill Level) - Minimum rank of SMSgt Completion of the AFIT WMGT 570, Civil Engineer Superintendent Course is recommended	SMSgt	20 years	11 years	28 Years
Civil Engineer Manager (CEM) -USAF Senior NCO Academy (SNCOA) resident graduation is a prerequisite for CMSgt sew-on (active duty only) Completion of the Chief Leadership course	CMSgt	22 years	14 years	30 years

10.2. CE Occupational Badge. The Civil Engineer badge reflects a great history and tradition. By wearing it, you will be recognized by your fellow Airmen as having achieved an expected level of competence. The multitude of engineers before you established this expectation through excellent service in both peace and war. Eligibility criteria for award and wear of AF occupational badges can be found in AFI 36-2923, *Aeronautical, Duty, and Occupational Badges*, on the Air Force Electronic Publications Library (AFEPL).

10.2.1. CE Badge Heraldry. The gear wheel and compass have historically been used to represent the engineering profession, in both the military and civilian sector. The gear represents the essence of engineering: applying scientific principles and technology to practical ends. To Air Force engineers, the gear symbolizes an element (representing the built environment) that meshes with other environments (weapon systems and trained personnel) to enable the Air Force to perform its mission. The compass is a precision tool historically used by engineers in designing and constructing facilities and equipment. The gear and compass together symbolize all the diverse specialties within Air Force civil engineer. Finally, the wings help to portray the fundamental linkage between the engineering and aviation components; and that the built environment is the foundation supporting Air Force mission and people.

10.2.1.1. Basic Badge. The basic badge is awarded upon successful completion of the apprentice course and the CE Common Core training.

10.2.1.2. Senior Badge. The senior badge adds a star to the top of the badge. This is awarded after the member successfully completes all the 7-level training requirements.

10.2.1.3. Master Badge. The master badge adds a wreath around the star. It is awarded to master sergeant or above with five years in the specialty from award of the 7-skill level.

SECTION C – SKILL-LEVEL TRAINING REQUIREMENTS

11. Purpose. The various skill levels in the career field are defined in terms of tasks and knowledge requirements for the Electrical Power Production career ladder. They are stated in broad, general terms and establish the standards of performance. An all-encompassing core task list has been developed for this specialty because of the diversity of the missions supported and the equipment installed to meet mission requirements. Core tasks (and diamond tasks as applicable), knowledge items, and skill requirements for this specialty are identified in the Specialty Training Standard (STS). Completion of the mandatory 3-level apprentice course, the mandatory 3-level Distance learning (DL) Common Core program, the mandatory completion of the 5-level Career Development Course (CDC), the mandatory completion of applicable AFQTPs and CerTests, and the mandatory 7-level DL Common Core.

12. Skill-Level Training Requirements.

12.1. Apprentice (3-Level) Training Requirements.

12.1.1. Specialty Qualifications.

12.1.1.1. Knowledge. Completion of the technical training apprentice course and the CE Common Core Distance Learning satisfy this mandatory requirement.

12.1.1.2. Education. Completion of high school or general education development (GED) courses in mathematics, general science, physics, shop mechanics, electricity, and computer fundamentals is desirable.

12.1.2.3. Training.

12.1.2.3.1. Completion of the Electrical Power Production Apprentice Course, J3ABR3E032 00AB, is mandatory for award of this skill level

12.1.2.3.2. Completion of the CE Common Core DL is mandatory for the award of this skill level.

12.1.2.4. Experience. N/A

12.1.2.5. Other.

12.1.2.5.1. Normal color vision as defined in AFI 48-123, *Medical Examination and Standards*

12.1.2.5.2. Qualification to operate government vehicles according to AFMAN 24-301, *Vehicle Operations*.

12.1.2. Training Sources/Resources.

12.1.2.1. Formal Training is accomplished through Course J3ABR3E032 00AB, at Sheppard AFB, TX.

12.1.2.2. The COL, Part II, Section B of this CFETP, is optional. When used, it identifies all the knowledge and task objectives with their respective standards.

12.1.2.3. When applicable, AFQTPs, and associated CerTests are mandatory for use during UGT/QT on all core tasks and diamond (♦)tasks.

12.1.2.4. DL product for CE Common Core tasks

12.1.3. Implementation.

12.1.3.1. The 3-skill level is awarded after graduating the apprentice course and completing the CE Common Core DL.

12.2. Journeyman (5-Level) Training Requirements.

12.2.1. Specialty Qualification. Entry into 5-level upgrade training is initiated after the individual has completed the 3-level school. All 3-level qualifications apply to 5-level requirements.

12.2.1.1. Knowledge. Knowledge of the following is mandatory:

12.2.1.1.1. Principles of electronics and electricity, including generation, conversion, transformation, distribution, and utilization

12.2.1.1.2. Types, capacity, and purpose of high/low voltage circuits, circuit breakers, switches, fuses, regulators, relays, instruments, and meters associated with electric generation and distribution

12.2.1.1.3. Interpreting instrument and meter readings

12.2.1.1.4. Wiring diagrams, schematics, drawings, and technical publications

12.2.1.1.5. Techniques of operating and maintaining internal combustion engines, generators, generating plants, distribution panels, and accessories

12.2.1.1.6. Repair and maintenance of aircraft arresting systems

12.2.1.1.7. Use and purpose of test equipment

12.2.1.1.8. Safety rules and practices

12.2.1.1.9. Environmental policies

12.2.1.1.10. Principles of management

12.2.1.1.11. Operation and repair of electrical power production systems

12.2.1.2. Education. N/A

12.2.1.3. Training

12.2.1.3.1. Completion of CDC is mandatory.

12.2.1.3.2. Certification of all 5-level core tasks identified with a single asterisk (*) in the core task column of the STS is mandatory.

12.2.1.3.3. Completion of AFQTPs for assigned core and diamond (♦)tasks is mandatory.

12.2.1.3.4. Completion of CerTests for all diamond (♦)tasks with a minimum of 80% passing score is mandatory.

12.2.1.3.5. Certification of duty position requirements identified by the supervisor is mandatory.

12.2.1.3.6. Completion of the J3AZR3E052 00TA resident course, Troubleshooting Electrical Power Generating Equipment, is highly desirable.

12.2.1.3.7. Completion of the J3AZR3E052 00BA resident course, Contingency Power Generation is highly desirable.

12.2.1.3.8. Completion of J7AZT3E052 00AA, Aircraft Arresting Systems, BAK-12 (MTT) is highly desirable.

12.2.1.3.9. Completion of J7AZT3E052 00HA, Hook Cable Support System, BAK-14 (MTT) is highly desirable.

12.2.1.3.10. Completion of J7AZT3E052 00MB, Mobile Aircraft Arresting Systems, (MAAS) MTT is highly desirable.

12.2.1.4. Experience.

12.2.1.4.1. Qualification in and possession of 3-skill level.

12.2.1.4.2. Operation and maintenance of engines, generators, and distribution components of electric power production equipment and aircraft arresting barriers.

12.2.1.4.3. Minimum 15 months on-the-job training (9 months for re-trainees) before award of 5-skill level.

12.2.1.5. Other. N/A

12.2.2. Training Sources/Resources

12.2.2.1. CDC 3E052 (A and B or C and D) Electrical Power Production Journeyman

12.2.2.2. The STS (Part II, Section A of the CFETP) identifies all core tasks required for qualification in the individual's duty position.

12.2.2.3. Qualified trainers provide upgrade and qualification training for duty positions, managed programs, and/or equipment to be used.

12.2.2.4. Resident Course J3AZR3E052 00TA, Troubleshooting Electrical Power Generating Equipment

12.2.2.5. Resident Course J3AZR3E052 00BA, Contingency Power Generation

12.2.2.6. MTT Course J7AZT3E052 01AA, Aircraft Arresting Systems, BAK-12.

12.2.2.7. MTT Course J7AZT3E052 02AA, BAK-14

12.2.2.8. MTT Course J7AZT3E052 00MB, Mobile Aircraft Arresting Systems (MAAS)

12.2.3. Implementation.

12.2.3.1. Entry into formal journeyman upgrade training is accomplished after individuals are assigned to their first duty station.

12.2.3.2. Qualification training is initiated any time individuals are assigned duties they are not certified to perform.

12.2.3.3. AFQTPs are used concurrently to obtain necessary duty position qualifications.

12.3. Craftsman (7-Level) Training Requirements

12.3.1. Specialty Qualification. All 5-level qualifications apply to 7-level requirements.

12.3.1.1. Knowledge. All 5-level knowledge requirements apply to 7-level requirements.

12.3.1.2. Education.

12.3.1.2.1. To assume the grade of SSgt, individuals must successfully complete Airman Leadership School (active duty only).

12.3.1.2.2. To assume the grade of MSgt, individuals must successfully complete the NCO Academy (active duty only).

12.3.1.2.3. For ANG/AFRC, completion of Air Force Institute for Advanced Distributive Learning (AFIADL) courses 00001 (ALS) and 00009D & E (NCO Academy) satisfy the requirement.

12.3.1.3. Training

12.3.1.3.1. Completion of CE Common Core 7-Level DL course is mandatory.

12.3.1.3.2. Completion of in-residence 7-level Craftsman Course is mandatory (when implemented).

12.3.1.3.3. Certification of duty position requirements identified by the supervisor is mandatory.

12.3.1.3.4. Certification of all 5- and 7-skill level core tasks identified with a single asterisk (*) respectively in the core column of the STS is mandatory.

12.3.1.3.5. Completion of all AFQTPs for assigned core and diamond (♦) tasks is mandatory.

12.3.1.3.6. Completion of the AFQTP associated CerTests for all diamond (♦) tasks with a minimum of 80% passing score is mandatory.

12.3.1.4. Experience

12.3.1.4.1. Qualification in and possession of a 5-level

12.3.1.4.2. Performing or supervising functions of operating and repairing of electrical power production and aircraft arresting systems

12.3.1.4.3. Minimum 12 months on-the-job training (6 months for re-trainees) before award of 7- skill level

12.3.1.5. Other. N/A

12.3.2. Training Sources/Resources

12.3.2.1. J3AZR3E072 00AA, Power Generation Planning, Operations and Maintenance (3E0X2 7-level supplemental course).

12.3.2.2. NCO Academy Course 00006D & E (paper-based correspondence).

12.3.2.3. The STS identifies all core tasks required for qualification in the individual's duty position.

12.3.2.4. Qualified trainers provide upgrade and qualification training for duty positions, managed programs, and/or equipment to be used.

12.3.2.5. CE Common Core 7-Level DL product.

12.3.3. Implementation.

12.3.3.1. Entry into 7-level training is initiated when an individual is selected for SSgt and has fulfilled all 5-level requirements.

12.3.3.2. Qualification training is initiated any time an individual is assigned duties that they are not qualified to perform.

12.3.3.3. AFQTPs are used concurrently to obtain necessary duty position qualifications.

12.4. Superintendent (9-Level) Training Requirements

12.4.1. Specialty Qualification

12.4.1.1. Knowledge. Knowledge of the following is mandatory:

12.4.1.1.1. Air Force training programs

12.4.1.1.2. CE policies, practices, and procedures of base maintenance and operations, crafts, facilities, equipment, and systems

12.4.1.1.3. Interpretation and application of maintenance and work force management

12.4.1.1.4. Principles of electricity and electronics, electrical circuitry and distribution; interior and exterior electrical distribution systems

12.4.1.1.5. Internal combustion engines and other prime movers for electrical generating systems

12.4.1.1.6. Principles of alarm systems, cathodic protection systems, aircraft arresting systems, and airfield lighting systems

12.4.1.1.7. Safety and environmental concerns

12.4.1.2. Education

12.4.1.2.1. ANG/AFRC must complete AFIADL course 000014 to satisfy the Senior NCO Academy requirement.

12.4.1.3. Training

12.4.1.3.1. Completion of duty position training requirements

12.4.1.3.2. Completion of the Civil Engineer Superintendent Course, WMGT 570, is recommended.

12.4.1.4. Experience

12.4.1.4.1. Qualification in and possession of 7-skill level is mandatory.

12.4.1.4.2. Managing functions such as inspecting, operating, maintaining, and repairing electrical distribution systems, electrical generating systems, fire and intrusion detection systems, airfield lighting systems, and aircraft arresting systems.

12.4.1.5. Other. N/A

12.4.2. Training Sources/Resources

12.4.2.1. SNCO Academy in-residence at Maxwell AFB, Gunter Annex AL.

12.4.2.2. SNCO Academy Course 000014.

12.4.2.3 Civil Engineer Superintendent Course, WMGT 570, conducted at Air Force Institute of Technology, Wright-Patterson AFB, OH

12.4.3. Implementation

12.4.3.1. Entry into 9-level training is initiated when an individual is selected for SMSgt and is a fully qualified 7-level.

12.4.3.2. QT is initiated any time an individual is assigned duties they are not qualified to perform.

12.5. Civil Engineer Manager

12.5.1. Specialty Qualification

12.5.1.1. Knowledge. Knowledge of the following is mandatory:

12.5.1.1.1. Managing and directing personnel resource activities

12.5.1.1.2. Interpreting and enforcing policy and applicable directives

12.5.1.1.3. Establishing control procedures to meet work goals and standards

12.5.1.1.4. Recommending or initiating actions to improve operational efficiency

12.5.1.1.5. Planning and programming work commitments and schedules

12.5.1.1.6. Developing plans regarding facilities, supplies, and equipment procurement and maintenance

12.5.1.2. Education. Must be a resident graduate of SNCOA (active duty only).

12.5.1.3. Training. Completion of the Chief Leadership Course

12.5.1.4. Experience

12.5.1.4.1. Possess qualifications in feeder specialty 3E090 prior to award of Civil Engineer Manager Code 3E000

12.5.1.4.2. Managerial ability to plan, direct, coordinate, implement, and control a wide range of work activity

12.5.1.5. Other. N/A

12.5.2. Training Sources and Resources. Chief Leadership Course is conducted at Maxwell AFB, AL

12.5.3. Implementation. Entry into Civil Engineer Manager Code 3E000 is initiated when an individual is selected for CMSgt and possesses qualifications in a feeder specialty (3E090, 3E191, 3E291, 3E391, 3E490, 3E591, and 3E691).

SECTION D - RESOURCE CONSTRAINTS

13. Purpose. The following paragraphs describe the resource constraints that result from publication of this CFETP. Any constraints are referenced to specific STS line items shown as back slashed on the STS.

13.1. Apprentice (3-Level) Training: No resource constraints

13.2. Journeyman (5-Level) Training

13.2.1. Equipment Constraints: NA

13.2.2. Time/Manpower/Student Man-year Constraints: None

13.2.3. Funds/Facilities Constraints: None

13.2.4. Other Constraints:

13.2.4.1. AFQTP development for all core and diamond tasks.

13.2.4.2. Impact. Required training will be available upon implementation of this CFETP.

13.2.4.3. OPR/Target Completion Date: AFCESA/CEOF/Sep 07

13.3. Craftsman (7-Level) Training: NA

13.4. Superintendent (9-Level) Training: None

SECTION E - TRANSITION TRAINING GUIDE

- 14. There are currently no transition training requirements. This area is reserved.**

PART II

SECTION A - SPECIALTY TRAINING STANDARD

1. Implementation. This STS is used to identify technical training provided by AETC for the 3-level Electrical Power Production Apprentice Course, J3ABR3E032 00AB, with class beginning 1 October 2008 and graduating 19 December 2008. It also identifies the follow-on Distance Learning (DL) Common Core curriculum.

2. Purpose. As prescribed in AFI 36-2201, *Air Force Training Program*, Volume 5, the STS:

2.1. Lists in Column 1 (*Tasks, Knowledge, and Technical Reference*) the most common tasks, knowledge, and Technical References (TRs) necessary for Airmen to perform duties in the 3-, 5-, and 7-skill levels.

2.2. Column 2 (*Core Tasks*) identifies core tasks (specialty-wide training requirements) by an asterisk (*) for 5- and 7-skill levels. ***As a minimum, trainees must complete all core tasks for skill-level upgrade.***

2.2.1. All tasks in the 3-level column are considered wartime tasks. In response to a wartime scenario, training in the 3-level course is accelerated and all tasks and knowledge are taught in a streamlined training environment—i.e., 10 hours-a-day, 6 days-a-week.

2.2.2. Tasks identified by a diamond (♦) in Column 2 are extremely important to the career field. Equipment shortfalls at most locations however, have created problems with the actual hands-on certification of these tasks. In instances where required equipment is not available for instruction, completion of the task's AFQTP and corresponding CerTest and their associated tests is sufficient to fulfill the requirement for upgrade training.

2.3. Provides certification for OJT. Columns 3A, B, C, D, and E are used to record completion of tasks and knowledge training requirements. If available, use automated training management system, the Air Force Training Record (AFTR), to document technician qualifications. Task certification of core tasks requires a training completion date and initials of the trainee, trainer, and certifier. All non-core tasks require training completion date and initials of the trainee and trainer only.

2.4. Shows formal training and correspondence course requirements. Columns 4A, B, and C show the proficiency to be demonstrated on the job by the graduate as a result of training on the task/knowledge and the career knowledge provided by the initial skills training course, distance learning program, correspondence course, and computer-based training. See CADRE/AFSC/CDC listing maintained by the unit education and training manager for current CDC listings.

2.5. Identifies qualitative requirements. Attachment 1 contains the *Proficiency Code Key* used to indicate the level of training and knowledge provided by resident training, distance learning, and career development courses.

2.6. Becomes a Job Qualification Standard (JQS) for on-the-job training when placed in AF Form 623, Individual Training Record, and used according to AFI 36-2201, *AF Training Program*, Volume 5. When used as a JQS, the following requirements apply:

2.6.1. Documentation. Document and certify completion of training.

2.6.1.1. Identify current duty position requirements by circling the sub-paragraph number or letter next to the task statement. **Additionally, circle all core and diamond (♦) tasks.** Document task completion by annotating Columns 3A, 3B, 3C, and 3D. **NOTE: All entries shall be made in pencil.**

2.6.1.2. AFQTPs. Enter the start date of the AFQTP on the AFQTP Documentation Record. Once completed, enter the completion date. When **hands-on** training is started and completed, annotate the STS accordingly.

2.6.1.3. Transcribing to a new CFETP. Transcribing to a new CFETP is an administrative function, not a re-evaluation of training. Therefore, supervisor and trainer are considered synonymous for the purpose of training. Transcribe within 120 days (240 days for ARC) of new CFETP date. Upon completion of a new CFETP, use the following procedures to transcribe:

2.6.1.3.1. Use the new CFETP to identify past and current training requirements and to transcribe qualifications from previous CFETP.

2.6.1.3.2. For tasks previously certified and still required in the current duty position, circle the sub-paragraph number next to the task statement and enter the current date in the completion column. Trainee initials in the trainee column and the current task certifier or supervisor/trainer initials in the trainer column.

2.6.1.3.3. For tasks previously certified but not required in the current duty position (do not circle), transcribe only the previous certification dates (no initials). If the task later becomes required in the duty position, re-certify using current dates and initials.

2.6.1.3.4. Annotate the AF Form 623a, for example, "I certify the information contained in the CFETP dated XX was transcribed to the CFETP dated XX, and the trainee was given the superseded CFETP." Signed and dated by the supervisor and trainee.

2.6.1.4. Documenting Career Knowledge. When a CDC is not available, the supervisor identifies STS training references that the trainee requires for career knowledge and ensures, as a minimum, that trainees cover all mandatory items specified in the Enlisted Classification Directory job description.

2.6.1.5. De-Certification and Re-Certification. When a supervisor determines an Airman is unqualified on a task previously certified for their duty position, the supervisor erases the previous certification, or deletes certification when using the automated system. Appropriate remarks pertaining to the reason for the de-certification are entered on the AF Form 623a. Begin re-certification (if required) following procedures of initial certification.

2.6.2. Training Standard. Tasks are trained and certified to the “go” level. “Go” means the individual can perform the task without assistance and meets the local requirements for accuracy, timeliness, and correct use of procedures. This equates to a “3c” in the proficiency code key. AFQTPs, when available, shall be used to identify Air Force standardized procedures. Local requirements for accuracy, timeliness, and use of procedures shall be applied accordingly.

2.7. The STS is used as a guide for development of promotion tests in the Weighted Airman Promotion System (WAPS). Senior NCOs with extensive practical experience in their career fields develop Specialty Knowledge Tests (SKTs) at the USAF Occupational Measurement Squadron at Randolph AFB TX. The tests sample knowledge of STS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are based upon study references listed in the WAPS Catalog. Individual responsibilities are in Chapter 1 of AFI 36-2605, *United States Air Force Reenlistment, Retention, and NCO Status Programs*. WAPS is not applicable to the Air National Guard or Air Reserve Forces.

3. Recommendations. Comments and recommendations are invited concerning quality of training AETC graduates receive. Reference this STS regarding changes and address your correspondence to 782 TRG/TGAV, 620 9th Avenue, Suite 3, Sheppard AFB TX 76311-2368. A 782d Training Group Customer Service Information Line (CSIL) is installed for the supervisor’s convenience to identify graduates who may have received over or under training on tasks/knowledge items listed in this STS. For a quick response to problems, call using the CSIL at DSN: 736-2574 any time (day or night).

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

KEVIN J. SULLIVAN, Lt. Gen, USAF
DCS, Logistics, Installations and
Mission Support

3 Attachments:

1. Qualitative Requirements (Proficiency Code Keys)
2. STS: 3-, 5-, and 7-Level 3E0X2 Career Field Training Requirements
3. AFQTP Documentation Record

4. Proficiency Code Keys, Attachment 1

<u>This Block Is For Identification Purposes Only</u>		
Name Of Trainee		
Printed Name (<i>Last, First, Middle Initial</i>)	Initials (Written)	SSAN (last 4)
Printed Name Of Certifying Official And Written Initials		
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	

QUALITATIVE REQUIREMENTS

Proficiency Code Key		
	Scale Value	Definition: The individual
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (Extremely Limited)
	2	Can do most parts of the task. Needs only help on hardest parts. (Partially Proficient)
	3	Can do all parts of the task. Needs only a spot check of completed work. (Competent)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (Highly Proficient)
*Task Knowledge Levels	a	Can name parts, tools, and simple facts about the task. (Nomenclature)
	b	Can determine step by step procedures for doing the task. (Procedures)
	c	Can identify why and when the task must be done and why each step is needed. (Operating Principles)
	d	Can predict, isolate, and resolve problems about the task. (Advanced Theory)
**Subject Knowledge Levels	A	Can identify basic facts and terms about the subject. (Facts)
	B	Can identify relationship of basic facts and state general principles about the subject. (Principles)
	C	Can analyze facts and principles and draw conclusions about the subject. (Analysis)
	D	Can evaluate conditions and make proper decisions about the subject. (Evaluation)
<u>Explanations</u> * A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b) ** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks. - This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC. X This mark is used alone in the course columns to show that training is required but not given due to limitations in resources. NOTE: All tasks and knowledge items shown with a proficiency code are trained during war time.		

This Block Is For Identification Purposes Only		
Name Of Trainee		
Printed Name (Last, First, Middle Initial)	Initials (Written)	SSAN (last 4)
Printed Name Of Certifying Official And Written Initials		
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	

QUALITATIVE REQUIREMENTS

Behavioral Statement STS Coding System	
Code	Definition
K	Subject Knowledge Training - The verb selection identifies the individual's ability to identify facts, state principles, analyze, or evaluate the subject
P	Performance Training - Identifies that the individual has performed the task to the satisfaction of the course; however, the individual may not be capable of meeting the filed requirements for speed and accuracy.
pk	Performance Knowledge Training - The verb selection identifies the individual's ability to relate simple facts, procedures, operating principles, and operational theory for the task.
-	No training provided in the course or CDC.
X	Training is required but not provided due to limitations in resources.
Each STS element is written as a behavioral statement. The detail of the statement and verb selection reflects the level of training provided by resident training and career development courses.	

5. Specialty Training Standard, Attachment 2

Note 1: Task knowledge gained at BMT will not be repeated during resident training.

Note 2: AFQTPs are provided through multiple delivery systems (CD-ROM, video, or web.) Completion is required for qualification or upgrade. For a current list of AFQTPs, access the AFCESA web page:

https://wwwmil.afcesa.af.mil/Directorate/CEO/Training/QTPs/ceof_3e0x2.htm .

Note 3: Annotate AFQTP completion on the AFQTP Documentation Record, Attachment 3 that follows the STS. Use the AFQTP Documentation Record to track knowledge training only.

Note 4: Annotate the STS only at the start and completion of hands-on training.

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
1 CE ORGANIZATION AND CAREER FIELD STRUCTURE TR: AFDD 2-4; AFIs 10-209, 10-210, 10-211, 32-1001, 32-1022, 36-2101, 38-101; AFPC Enlisted Classification Directory; War Mobilization Plan (WMP)-1, Annex S		◆												
1.1 Civil Engineer (CE) structure									-	A	-	B	-	-
1.2 Progression in career ladder									-	A	-	B	-	-
1.3 Duties and responsibilities									-	-	-	-	-	-
1.3.1 Peacetime									-	A	-	B	-	-
1.3.2 Contingency									-	A	-	B	-	-
1.4 Functions of									-	-	-	-	-	-
1.4.1 Base Civil Engineer (BCE)									-	A	-	B	-	-
1.4.2 Prime BEEF									-	A	-	B	-	-
1.4.3 RED HORSE									-	A	-	B	-	-
1.4.4 HQ Air National Guard (ANG) Air Force Reserve Command (AFRC)									-	A	-	B	-	-
1.4.5 HQ Air Force Civil Engineer Support Agency (AFCESA)									-	-	-	A	-	B
1.4.6 HQ Air Force Center For Environmental Excellence (AFCEE)									-	-	-	-	-	A
1.4.7 Air Force Institute of Technology (AFIT)									-	-	-	-	-	A
1.4.8 Air Force Research Laboratory (AFRL)									-	-	-	-	-	A
1.5 Resources:									-	-	-	-	-	-
1.5.1 Assess manpower requirements									-	-	-	-	-	b
1.5.2 Identify budget requirements									-	-	-	-	-	b
1.5.3 Determine equipment requirements									-	-	-	-	-	b
1.5.4 Use Allowance Standards (AS)									-	-	-	-	-	b
1.5.5 Research, Development, and Acquisition (RD&A) TR: AFI 63-118									-	-	-	-	-	-
1.5.5.1 Process									-	-	-	-	-	B
1.5.5.2 Unit responsibilities									-	-	-	-	-	B
1.5.5.3 Major command responsibilities									-	-	-	-	-	B

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
1.5.6 Assess vehicle requirements									-	-	-	-	-	b
1.5.7 Requesting contract services									-	-	-	-	-	b
1.5.8 Requesting Simplified Acquisition of Base Engineering Requirements (SABER) contract									-	-	-	-	-	B
1.5.9 GEO Base technologies									-	-	-	B	-	B
1.5.10 Quality Assurance Personnel (QAP) duties TR: Federal Acquisition Regulation Part 37.6; AFI 63-124; AFPAM 32-1004 Vol 2									-	-	-	-	-	-
1.5.10.1 Evaluate contractor's performance									-	-	-	-	-	-
1.5.10.2 Document contractor's performance									-	-	-	-	-	-
1.5.10.3 Maintain surveillance documents									-	-	-	-	-	-
2 SUPERVISION TR: AFIs 36-2201, 36-2406, 36-3401									-	-	-	-	-	-
2.1 Orient new personnel									-	-	-	-	-	b
2.2 Assign personnel to work crew									-	-	-	-	-	b
2.3 Coordinate work assignments									-	-	-	-	-	b
2.4 Schedule work assignments and priorities									-	-	-	-	-	b
2.5 Establish:									-	-	-	-	-	-
2.5.1 Work methods									-	-	-	-	-	b
2.5.2 Controls									-	-	-	-	-	b
2.5.3 Performance standards									-	-	-	-	-	b
2.6 Evaluate work performance of subordinate personnel									-	-	-	-	-	b
2.7 Resolve technical problems for subordinate personnel									-	-	-	-	-	b
2.8 Direct projects									-	-	-	-	-	b
3 TRAINING TR: AFIs 36-2101, 36-2201; AFPD 36-22; AFPC Enlisted Classification Directory									-	-	-	-	-	-
3.1 Evaluate personnel to determine need for training									-	-	-	a	-	b
3.2 Enlisted specialty training supervision									-	-	-	-	-	-
3.2.1 Prepare job qualification standards									-	-	-	a	-	b
3.2.2 Conduct training									-	-	-	a	-	b
3.2.3 Counsel trainees on their progress									-	-	-	a	-	b
3.2.4 Monitor training effectiveness of									-	-	-	-	-	-
3.2.4.1 Career knowledge									-	-	-	a	-	b
3.2.4.2 Job proficiency upgrade									-	-	-	a	-	b
3.2.4.3 Qualification									-	-	-	a	-	b
3.3 Maintain training records									-	-	-	a	-	b
3.4 Evaluate training programs effectiveness									-	-	-	a	-	b

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
3.5 Recommend people for training									-	-	-	a	-	b
3.6 AETC training management system (Training Allocation)									-	-	-	A	-	B
3.7 Managing Certification and Testing (CerTest)									-	-	-	A	-	B
3.8 National/DoD Certification requirements									-	-	-	A	-	B
3.9 Air Force Qualification Training Package (AFQTP) Requirements									-	-	-	A	-	B
4 ENVIRONMENTAL AWARENESS AND COMPLIANCE TR: AFI 32-7045; AFD 32-70; EO 12856									-	-	-	-	-	-
4.1 Environmental Compliance (ECAMP)									-	-	-	A	-	B
4.2 Environmental Protection Agency (EPA)									-	-	-	A	-	B
5 CE MANAGEMENT TR: AFIs 32-1001, 32-1022; AFPAMs 32-1098, 32-1125 Vol 1; AFMAN 23-110									-	-	-	-	-	-
5.1 Customer relationships									-	A	-	B	-	-
5.2 Work identification and authorization									-	-	-	A	-	B
5.3 Plan work requirements									-	-	-	A	-	b
5.4 Plan logistics support (CEMAS, BOM)									-	-	-	A	-	b
5.5 Government Purchase Card (GPC) Program									-	-	-	A	-	B
5.6 Maintain Recurring Work Program (RWP)									-	-	-	A	-	b
5.7 Scheduling/time accounting									-	-	-	A	-	b
5.8 Warranty and Guarantee Program									-	-	-	A	-	B
5.9 Property accountability									-	-	-	A	-	B
5.10 Air Force Comprehensive Plan									-	-	-	A	-	B
5.11 Legal limits									-	-	-	A	-	B
5.12 Mark "As Built" drawings									-	-	-	A	-	b
5.13 Reimbursements procedures									-	-	-	A	-	B
5.14 CE-Specific Automated Systems (Computer) Capability									-	-	-	-	-	-
5.14.1 Perform inputs									-	-	-	a	-	b
5.14.2 Maintain files									-	-	-	a	-	b
5.14.3 Develop automated reports									-	-	-	a	-	b
5.14.4 Extract automated reports									-	-	-	a	-	b
5.14.5 Perform automated data analysis									-	-	-	-	-	b
5.15 Host Tenant and Interservice Agreements									-	-	-	-	-	A
5.16 Civil Engineer Civilian Management									-	-	-	-	-	B
6 AF OCCUPATIONAL SAFETY AND HEALTH (AFOSH) PROGRAM TR: AFIs 91-301, 91-302									-	-	-	-	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
6.1 Supervisory responsibilities									-	-	-	B	-	-
6.2 Hazardous materials waste handling									A	-	-	B	-	-
6.3 Lead-based paint (LBP) hazard TR: 29 CFR 1926.62; Working With Lead-Based Paint: Facts and Information Applicable to Air Force Facilities									A	-	-	B	-	-
6.4 Asbestos awareness									A	-	-	B	-	-
7 PUBLICATIONS TR: AFI 33-360 Vol 1									-	-	-	-	-	-
7.1 Military									A	-	-	B	-	-
7.2 Commercial									A	-	-	B	-	-
7.3 Engineering Technical Letters (ETL)									-	-	-	A	-	B
8 COMMUNICATIONS TR: AFIs 32-1043, 33-106; AFJMAN 24-306									-	-	-	-	-	-
8.1 Use radios									b	-	-	-	-	-
8.2 Use hand signals									b	-	-	-	-	-
8.3 Respond to airdrome signals									b	-	-	-	-	-
9 AFSC-SPECIFIC SAFETY STANDARDS TR: AFPDs 91-2, 91-3; AFIs 91-302, 32-1064; AFOSHSTD 91-501; NFPA 70E; UFC3-560-01									-	-	-	-	-	-
9.1 AFOSH Standards for AFS		*							A	-	-	B	C	-
9.2 Remove victim from energized circuit									3c	-	-	c	-	-
9.3 Apply first aid procedures for shock									b	-	-	c	-	-
9.4 Perform cardiopulmonary resuscitation (CPR)									3c	-	-	-	-	-
9.5 Manual lifting awareness									A	-	-	B	-	-
9.6 Initial Federal Hazard Communication Program (FHCTP) TR: DOD 6050.5-G-1; OSHA 29; CFR 1910.1200; AFI 91.302									A	-	-	-	-	-
9.7 Fire extinguisher training									A	-	-	-	-	-
10 AFSC SPECIFIC PUBLICATIONS TR: TOs 0-1-01, 0-1-02, 00-2-1, 00-5-1, 00-5-2, 00-20-7									-	-	-	-	-	-
10.1 Technical Order system									A	-	-	B	-	-
10.2 Use technical orders		*							2b	-	-	c	-	-
10.3 Technical order improvement reporting									A	-	-	B	-	-
10.4 Acquire technical orders									-	-	-	-	2b	-
11 ELECTRICAL POWER PRODUCTION TOOLS AND TEST EQUIPMENT TR: AFIs 32-1031, 32-1044; TOs 32, 33, 34, 35 Series									-	-	-	-	-	-
11.1 Use hand tools									2b	-	-	-	-	-

	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
1. Tasks, Knowledge And Technical References	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) DL	(1) Course	(2) CDC	(1) Course	(2) DL
		◆												
11.2 Specialized tools									-	-	-	B	-	-
11.3 Use engine performance test devices:									-	-	-	-	-	-
11.3.1 Hand-held tachometer									-	-	-	b	-	-
11.3.2 Compression tester									-	-	-	b	-	-
11.4 Use electrical test equipment:									-	-	-	-	-	-
11.4.1 Multimeter		*							2b	-	-	c	-	-
11.4.2 Earth Resistance tester									2b	-	-	c	-	-
11.4.3 Clamp-on ammeter									1b	-	-	c	-	-
11.4.4 Megohmmeter									b	-	-	c	-	-
11.4.5 Battery load tester									b	-	-	c	-	-
11.4.6 Phase rotation meter									2b	-	-	c	-	-
12 GENERAL POWER PRODUCTION TASKS TR: AFI 32-1062; TOs 32, 33, 34, 35 Series; applicable manufacturer's manuals									-	-	-	-	-	-
12.1 Principles of corrosion control									A	-	-	B	-	-
12.2 Types of engine pre-heating devices									A	-	-	B	-	-
12.3 Load Banks									-	-	-	-	-	-
12.3.1 Components and theory of operation									A	-	-	B	-	-
12.3.2 Connect cables									1b	-	-	c	-	-
12.3.3 Configure for proper voltage									b	-	-	c	-	-
12.3.4 Troubleshoot									-	-	-	b	-	-
12.3.5 Inspect									1b	-	-	c	-	-
12.3.6 Replace components									-	-	-	b	-	-
12.3.7 Operate									b	-	-	c	-	-
12.4 Battery Chargers									-	-	-	-	-	-
12.4.1 Components and theory of operation									A	-	-	B	-	-
12.4.2 Troubleshoot			*						1b	-	-	c	-	-
12.4.3 Inspect									1b	-	-	c	-	-
12.4.4 Replace components									-	-	-	b	-	-
12.4.5 Adjust									1b	-	-	c	-	-
12.5 Perform soldering									-	-	-	b	-	-
13 ELECTRICAL FUNDAMENTALS TR: TO 31-1-141 Series; applicable manufacturer's manuals									-	-	-	-	-	-
13.1 Basic electrical concepts and terms									B	-	-	B	-	-
13.2 Fundamentals of DC									B	-	-	B	-	-
13.3 Fundamentals of AC									B	-	-	B	-	-
13.4 Electrical components and symbols									A	-	-	B	-	-
13.5 Test electrical components:									-	-	-	-	-	-
13.5.1 Inductors									b	-	-	c	-	-
13.5.2 Capacitors									b	-	-	c	-	-
13.5.3 Resistors									b	-	-	c	-	-
13.6 Electronic components and symbols									A	-	-	B	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
13.7 Principles of operation of components:									-	-	-	-	-	-
13.7.1 Diodes									A	-	-	B	-	-
13.7.2 Inductors									A	-	-	B	-	-
13.7.3 Capacitors									A	-	-	B	-	-
13.7.4 Resistors									A	-	-	B	-	-
13.8 Interpret wiring diagrams		*							2b	-	-	c	-	-
14 GENERATOR SET GROUNDING FUNDAMENTALS TR: AFI 32-1065									-	-	-	-	-	-
14.1 Grounding principles									-	-	-	-	-	-
14.1.1 Static									B	-	-	B	-	-
14.1.2 Equipment									B	-	-	B	-	-
14.2 Install equipment grounds		*							b	-	-	c	-	-
14.3 Troubleshoot grounds									b	-	-	c	-	-
15 ENGINE FUNDAMENTALS TR: AFJMAN 32-1080; TOs 35, 38 Series									-	-	-	-	-	-
15.1 Gasoline engines									-	-	-	-	-	-
15.1.1 Components and theory of operation									A	-	-	B	-	-
15.1.2 Engine malfunctions		*							A	-	-	B	-	-
15.1.3 Perform engine tune-up		*							1b	-	-	c	-	-
15.2 Diesel engines									-	-	-	-	-	-
15.2.1 Components and theory of operation:									-	-	-	-	-	-
15.2.1.1 Two cycle									A	-	-	B	-	-
15.2.1.2 Four cycle									B	-	-	B	-	-
15.2.2 Engine malfunctions									A	-	-	B	-	-
15.2.3 Inspect:									-	-	-	-	-	-
15.2.3.1 Camshaft									-	-	-	b	-	-
15.2.3.2 Vibration damper									-	-	-	b	-	-
15.2.3.3 Timing gears									-	-	-	b	-	-
15.2.3.4 Cylinder head									-	-	-	b	-	-
15.2.3.5 Intake and exhaust valves									-	-	-	b	-	-
15.2.3.6 Engine block									-	-	-	b	-	-
15.2.4 Replace:									-	-	-	-	-	-
15.2.4.1 Camshaft									-	-	-	b	-	-
15.2.4.2 Vibration damper									-	-	-	b	-	-
15.2.4.3 Timing gears									-	-	-	b	-	-
15.2.4.4 Intake and exhaust valves									-	-	-	b	-	-
15.2.4.5 Valve spring assemblies									-	-	-	b	-	-
15.2.4.6 Cylinder head									-	-	-	b	-	-
15.2.4.7 Engine seals/gaskets									-	-	-	b	-	-
15.2.5 Adjust:									-	-	-	-	-	-
15.2.5.1 Intake and exhaust valves									-	-	-	b	-	-
15.2.5.2 Camshaft timing									-	-	-	b	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
16 ENGINE DC ELECTRICAL SYSTEM TR: AFJMAN 32-1080; TO 35 Series									-	-	-	-	-	-
16.1 Components and theory of operation									B	-	-	B	-	-
16.2 Troubleshoot		*							b	-	-	c	-	-
16.3 Use wiring diagrams		*							2b	-	-	c	-	-
16.4 Inspect:									-	-	-	-	-	-
16.4.1 Battery charging alternator									b	-	-	c	-	-
16.4.2 Starter motor									b	-	-	c	-	-
16.4.3 Starter solenoid									b	-	-	c	-	-
16.5 Replace:									-	-	-	-	-	-
16.5.1 Battery charging alternator		*							b	-	-	c	-	-
16.5.2 Starter motor		*							1b	-	-	c	-	-
16.5.3 Starter solenoid									b	-	-	c	-	-
16.6 Batteries									-	-	-	-	-	-
16.6.1 Types									A	-	-	B	-	-
16.6.2 Service									b	-	-	c	-	-
16.6.3 Replace		*							1b	-	-	c	-	-
17 ENGINE LUBRICATION SYSTEM TR: AFI 32-1062; AFJMAN 32-1080; TOs 32, 33, 34, 35 Series									-	-	-	-	-	-
17.1 Components and theory of operation									B	-	-	B	-	-
17.2 Troubleshoot									b	-	-	c	-	-
17.3 Replace components:									-	-	-	-	-	-
17.3.1 Oil pump									-	-	-	b	-	-
17.3.2 Oil cooler									-	-	-	b	-	-
17.3.3 Filter body									-	-	-	b	-	-
17.3.4 Sending units									-	-	-	b	-	-
17.3.5 Protective devices									-	-	-	b	-	-
17.4 Service engine lubrication system		*							1b	-	-	c	-	-
17.5 Test lube oil									1b	-	-	c	-	-
18 FUEL SYSTEMS TR: AFI 32-1062; AFJMAN 32-1046, 32-1080; TOs 32, 33, 34, 35 Series									-	-	-	-	-	-
18.1 Gasoline									-	-	-	-	-	-
18.1.1 Components and theory of operation									B	-	-	B	-	-
18.1.2 Troubleshoot									b	-	-	c	-	-
18.1.3 Inspect:									-	-	-	-	-	-
18.1.3.1 Fuel pump									b	-	-	c	-	-
18.1.3.2 Filters/strainers									b	-	-	c	-	-
18.1.3.3 Carburetors									b	-	-	c	-	-
18.1.4 Replace:									-	-	-	-	-	-
18.1.4.1 Fuel pump									-	-	-	b	-	-
18.1.4.2 Filters/strainers									-	-	-	b	-	-
18.1.4.3 Carburetors									-	-	-	b	-	-
18.1.5 Adjust carburetor		*							1b	-	-	c	-	-
18.2 Diesel									-	-	-	-	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
18.2.1 Types, components and theory of operation									B	-	-	B	-	-
18.2.2 Troubleshoot		*							b	-	-	c	-	-
18.2.3 Inspect:									-	-	-	-	-	-
18.2.3.1 Fuel transfer pumps									b	-	-	c	-	-
18.2.3.2 Fuel injection pumps									b	-	-	c	-	-
18.2.3.3 Filters/strainers									b	-	-	c	-	-
18.2.4 Replace:									-	-	-	-	-	-
18.2.4.1 Fuel transfer pumps									-	-	-	b	-	-
18.2.4.2 Fuel injection pumps									-	-	-	b	-	-
18.2.4.3 Filters/strainers		*							1b	-	-	c	-	-
18.2.4.4 Injectors									-	-	-	b	-	-
18.2.4.5 Sending units									-	-	-	b	-	-
18.2.4.6 Protective devices									-	-	-	b	-	-
18.2.5 Prime and bleed									b	-	-	c	-	-
18.2.6 Time fuel injection pumps									a	-	-	b	-	-
18.2.7 Test fuel for water content									1b	-	-	c	-	-
19 ENGINE COOLING SYSTEM TR: AFI 32-1062; TO 35 Series									-	-	-	-	-	-
19.1 Components and theory of operation									B	-	-	B	-	-
19.2 Troubleshoot		*							b	-	-	c	-	-
19.3 Inspect:									-	-	-	-	-	-
19.3.1 Water pump									b	-	-	c	-	-
19.3.2 Radiator									b	-	-	c	-	-
19.3.3 Hoses									b	-	-	c	-	-
19.3.4 Drive belts									b	-	-	c	-	-
19.3.5 Heater									b	-	-	c	-	-
19.3.6 Sending units									b	-	-	c	-	-
19.3.7 Protective devices									b	-	-	c	-	-
19.3.8 Filters									b	-	-	c	-	-
19.4 Replace:									-	-	-	-	-	-
19.4.1 Water pump									-	-	-	b	-	-
19.4.2 Thermostat									b	-	-	c	-	-
19.4.3 Radiator									-	-	-	b	-	-
19.4.4 Hoses									-	-	-	b	-	-
19.4.5 Drive belts		*							b	-	-	c	-	-
19.4.6 Heater									b	-	-	c	-	-
19.4.7 Sending units									b	-	-	c	-	-
19.4.8 Protective devices									b	-	-	c	-	-
19.4.9 Filters									b	-	-	c	-	-
19.5 Maintain:									-	-	-	-	-	-
19.5.1 Service		*							1b	-	-	c	-	-
19.5.2 Flush									b	-	-	c	-	-
19.5.3 Test antifreeze									1b	-	-	c	-	-
19.5.4 Coolant additives									-	-	-	B	-	-
20 ENGINE GOVERNOR SYSTEMS TR: AFI 32-1062; TO 35 Series									-	-	-	-	-	-
20.1 Hydraulic governors									-	-	-	-	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
20.1.1 Components and theory of operation									A	-	-	B	-	-
20.1.2 Troubleshoot									-	-	-	b	-	-
20.1.3 Inspect									b	-	-	c	-	-
20.1.4 Replace									-	-	-	b	-	-
20.1.5 Test over speed trip device									-	-	-	b	-	-
20.1.6 Adjust:									-	-	-	-	-	-
20.1.6.1 Linkage									-	-	-	b	-	-
20.1.6.2 Controls									-	-	-	b	-	-
20.1.6.3 Over speed trip device									-	-	-	b	-	-
20.1.7 Perform compensation adjustments									-	-	-	b	-	-
20.2 Electronic Governors									-	-	-	-	-	-
20.2.1 Components and theory of operation									B	-	-	B	-	-
20.2.2 Troubleshoot			*						-	-	-	b	-	-
20.2.3 Inspect:									-	-	-	-	-	-
20.2.3.1 Control module									b	-	-	c	-	-
20.2.3.2 Actuator									b	-	-	c	-	-
20.2.3.3 Magnetic pickup									b	-	-	c	-	-
20.2.4 Replace:									-	-	-	-	-	-
20.2.4.1 Control module									b	-	-	c	-	-
20.2.4.2 Actuator									b	-	-	c	-	-
20.2.4.3 Magnetic pickup									b	-	-	c	-	-
20.2.5 Test over speed trip device									-	-	-	b	-	-
20.2.6 Adjust:									-	-	-	-	-	-
20.2.6.1 Droop		*							1b	-	-	c	-	-
20.2.6.2 Gain		*							b	-	-	c	-	-
20.2.6.3 Idle		*							b	-	-	c	-	-
20.2.6.4 Run		*							b	-	-	c	-	-
21 INTAKE AND EXHAUST SYSTEMS									-	-	-	-	-	-
21.1 Components and theory of operation TR: AFI 32-1062; TO 35 Series; applicable manufacturer's manuals									B	-	-	B	-	-
21.2 Troubleshoot									b	-	-	b	-	-
21.3 Inspect:									-	-	-	-	-	-
21.3.1 Air cleaner/filter									1b	-	-	c	-	-
21.3.2 Turbocharger									1b	-	-	c	-	-
21.3.3 Intercooler									1b	-	-	c	-	-
21.3.4 Intake manifold									1b	-	-	c	-	-
21.3.5 Exhaust manifold									1b	-	-	c	-	-
21.3.6 Expansion joint									1b	-	-	c	-	-
21.3.7 Muffler									1b	-	-	c	-	-
21.4 Replace:									-	-	-	-	-	-
21.4.1 Air cleaner/filter									1b	-	-	c	-	-
21.4.2 Turbocharger									-	-	-	b	-	-
21.4.3 Intercooler									-	-	-	b	-	-
21.4.4 Intake manifold									-	-	-	b	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
21.4.5 Exhaust manifold									-	-	-	b	-	-
21.4.6 Expansion joint									-	-	-	b	-	-
21.4.7 Muffler									-	-	-	b	-	-
22 AC GENERATING SYSTEM TR: AFJMAN 32-1082; AFI 32-1062; TO 35 Series; applicable manufacturer's manuals									-	-	-	-	-	-
22.1 Alternator									-	-	-	-	-	-
22.1.1 Components and theory of operation									A	-	-	B	-	-
22.1.2 Test									-	-	-	b	-	-
22.1.3 Inspect:									-	-	-	-	-	-
22.1.3.1 Rectifier assembly									b	-	-	c	-	-
22.1.3.2 Surge suppressor									b	-	-	c	-	-
22.1.3.3 Windings									b	-	-	c	-	-
22.1.4 Replace:									-	-	-	-	-	-
22.1.4.1 Rectifier assembly									-	-	-	b	-	-
22.1.4.2 Surge suppressor									-	-	-	b	-	-
22.1.4.3 Alternator assembly									-	-	-	b	-	-
22.2 Controls									-	-	-	-	-	-
22.2.1 Components and theory of operation									A	-	-	B	-	-
22.2.2 Troubleshoot			*						-	-	-	b	-	-
22.2.3 Inspect:									-	-	-	-	-	-
22.2.3.1 Voltage regulator									b	-	-	c	-	-
22.2.3.2 Exciter									b	-	-	c	-	-
22.2.3.3 Transformers									b	-	-	c	-	-
22.2.3.4 Control panel components									b	-	-	c	-	-
22.2.4 Replace:									-	-	-	-	-	-
22.2.4.1 Voltage regulator									-	-	-	b	-	-
22.2.4.2 Exciter									-	-	-	b	-	-
22.2.4.3 Transformers									-	-	-	b	-	-
22.2.4.4 Control panel components									b	-	-	c	-	-
22.3 Protective devices									-	-	-	-	-	-
22.3.1 Components and theory of operation									A	-	-	B	-	-
22.3.2 Inspect:									-	-	-	-	-	-
22.3.2.1 Circuit breakers									-	-	-	b	-	-
22.3.2.2 Relays									-	-	-	b	-	-
22.3.2.3 Fuses									1b	-	-	c	-	-
22.3.2.4 Diodes									-	-	-	b	-	-
22.3.3 Test:									-	-	-	-	-	-
22.3.3.1 Relays									1b	-	-	c	-	-
22.3.3.2 Fuses									1b	-	-	c	-	-
22.3.3.3 Diodes		*							1b	-	-	c	-	-
22.3.4 Replace:									-	-	-	-	-	-
22.3.4.1 Circuit breakers									-	-	-	b	-	-
22.3.4.2 Relays									-	-	-	b	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level		5 Skill Level		7 Skill Level	
		◆							(1) Course	(2) DL	(1) Course	(2) CDC	(1) Course	(2) DL
22.3.4.3 Fuses		*							1b	-	-	c	-	-
22.3.4.4 Diodes									b	-	-	c	-	-
23 STANDBY GENERATOR SET TR: AFIs 32-1062, 32-1063; applicable manufacturer's manuals									-	-	-	-	-	-
23.1 Perform:									-	-	-	-	-	-
23.1.1 Pre-operational inspection									2b	-	-	c	-	-
23.1.2 Operational inspection									2b	-	-	c	-	-
23.1.3 Post-operational inspection									2b	-	-	c	-	-
23.1.4 Unit operation									2b	-	-	c	-	-
23.1.5 Periodic Inspections and Preventive Maintenance:									-	-	-	-	-	-
23.1.5.1 Weekly									-	-	-	b	-	-
23.1.5.2 Monthly									-	-	-	b	-	-
23.1.5.3 Semi-annual									-	-	-	b	-	-
23.1.5.4 Annual									-	-	-	b	-	-
23.1.6 Emergency shutdown									b	-	-	c	-	-
23.2 Annotate generator set maintenance/operating record									b	-	-	c	-	-
24 AUTOMATIC TRANSFER SWITCHES TR: AFI 32-1063; TO 35CA6 Series; applicable manufacturer's manuals									-	-	-	-	-	-
24.1 Components and theory of operation									A	-	-	B	-	-
24.2 Troubleshoot									-	-	-	b	-	-
24.3 Determine compatibility between transfer switch, generator, and electrical service									-	-	-	B	C	-
24.4 Install									-	-	-	b	-	-
24.5 Inspect									1b	-	-	c	-	-
24.6 Replace components									-	-	-	b	-	-
24.7 Test									1b	-	-	c	-	-
24.8 Adjust									-	-	-	b	-	-
25 AIRCRAFT ARRESTING SYSTEMS TR: TO 35E8-2 Series; AFI 32-1043									-	-	-	-	-	-
25.1 MA-1A and E5 Barrier; Components, theory of operation, and configuration									A	-	-	B	-	-
25.2 BAK-9 Aircraft Arresting System; Components, theory of operation and configuration									A	-	-	B	-	-
25.3 BAK-12 Aircraft Arresting System									-	-	-	-	-	-
25.3.1 Components, theory of operation and configuration									B	-	-	B	-	-
25.3.2 Troubleshoot:									-	-	-	-	-	-
25.3.2.1 Brake assembly									-	-	-	b	-	-
25.3.2.2 Rewind system									-	-	-	b	2b	-
25.3.2.3 Hydraulic system									-	-	-	b	2b	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
25.3.3 Perform periodic inspections and preventive maintenance									-	-	-	-	-	-
25.3.3.1 Daily									b	-	-	c	-	-
25.3.3.2 Weekly									b	-	-	c	-	-
25.3.3.3 Monthly									1b	-	-	c	-	-
25.3.3.4 Quarterly									b	-	-	c	-	-
25.3.3.5 Semi-annual									b	-	-	c	2b	-
25.3.3.6 After arrestment									b	-	-	c	-	-
25.3.4 Replace components of:									-	-	-	-	-	-
25.3.4.1 Rewind system									-	-	-	b	-	-
25.3.4.2 Hydraulic system									-	-	-	b	-	-
25.4 BAK-14 Support System; Components, theory of operation and configuration									A	-	-	B	-	-
25.5 BAK-15 Aircraft Arresting System; Components, theory of operations and configuration									A	-	-	B	-	-
25.6 Textile Brake Aircraft Arresting System; Components, theory of operation and configuration									A	-	-	B	-	-
25.7 Type H Support System; Components, theory of operation and configuration									A	-	-	B	-	-
26 AFSC SPECIFIC CONTINGENCY RESPONSIBILITIES TR: AFIs 10-210, 10-211, 32-1062, 32-1063, 32-1065; NEC; TOs 35C and 35E series; Army TMs 10-8340-207-14, 10-450-200-12; WMP-1, Annex S, (Mar 95); AFPAM 10-219, Vol 2, 3, 4 & 5									-	-	-	-	-	-
26.1 Mobile generators									-	-	-	-	-	-
26.1.1 200 kW or less									-	-	-	-	-	-
26.1.1.1 Construction Features and Components									A	-	-	B	-	-
26.1.1.2 Set up generator for connection to load									-	-	-	-	-	-
26.1.1.2.1 Position generator									b	-	-	c	-	-
26.1.1.2.2 Connect generator to ground									1b	-	-	c	-	-
26.1.1.2.3 Configure for proper voltage		*							b	-	-	c	-	-
26.1.1.2.4 Cables									-	-	-	-	-	-
26.1.1.2.4.1 Selection									A	-	-	B	C	-
26.1.1.2.4.2 Phase identification									B	-	-	B	C	-
26.1.1.2.4.3 Connect		*							1b	-	-	c	-	-
26.1.1.2.5 Check phase rotation		*							1b	-	-	c	-	-
26.1.1.3 Perform:									-	-	-	-	-	-
26.1.1.3.1 Pre-operational inspection		*							2b	-	-	c	-	-
26.1.1.3.2 Operational inspection		*							2b	-	-	c	-	-
26.1.1.3.3 Post-operational inspection		*							2b	-	-	c	-	-
26.1.1.3.4 Single unit operation		*							2b	-	-	c	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
26.1.1.3.5 Parallel unit operation		*							1b	-	-	c	-	-
26.1.1.3.6 Scheduled inspections									-	-	-	c	-	-
26.1.1.4 Test generator set using load bank									1b	-	-	c	-	-
26.1.1.5 Disconnect generator from load									1b	-	-	c	-	-
26.1.1.6 Troubleshoot:									-	-	-	-	-	-
26.1.1.6.1 Engine system									b	-	-	c	-	-
26.1.1.6.2 Electrical system									2b	-	-	c	-	-
26.1.1.7 Calculate:									-	-	-	-	-	-
26.1.1.7.1 kW load		*							1b	-	-	c	-	-
26.1.1.7.2 Amperage load									1b	-	-	c	-	-
26.1.1.7.3 Facility power requirements		*							-	-	-	c	-	-
26.1.1.7.4 Fuel requirements		*							1b	-	-	c	-	-
26.1.2 MEP-012 Generator TR: TO 35C2-3-473-1									-	-	-	-	-	-
26.1.2.1 Construction Features and Components									A	-	-	B	-	-
26.1.2.2 High voltage safety									B	-	-	B	-	-
26.1.2.3 Installation:									-	-	-	-	-	-
26.1.2.3.1 Site selection									B	-	-	B	-	-
26.1.2.3.2 Position		◆							b	-	-	c	-	-
26.1.2.3.3 Ground		◆							b	-	-	c	-	-
26.1.2.4 Set up fuel storage area									b	-	-	c	-	-
26.1.2.5 Connect fuel supply									b	-	-	c	-	-
26.1.2.6 Perform:									-	-	-	-	-	-
26.1.2.6.1 Pre-operational inspection		◆							2b	-	-	c	-	-
26.1.2.6.2 Operational inspection		◆							2b	-	-	c	-	-
26.1.2.6.3 Post-operational inspection		◆							2b	-	-	c	-	-
26.1.2.6.4 Single unit operation		◆							2b	-	-	c	-	-
26.1.2.6.5 Parallel unit operation		◆							2b	-	-	c	-	-
26.1.2.6.6 Remote operation		◆							2b	-	-	c	-	-
26.1.2.6.7 Shutdown procedures									2b	-	-	c	-	-
26.1.2.7 Perform scheduled inspections									-	-	-	-	-	-
26.1.2.7.1 Mechanical		◆							-	-	-	c	-	-
26.1.2.7.2 Low voltage		◆							-	-	-	c	-	-
26.1.2.7.3 High voltage		◆							-	-	-	c	-	-
26.1.2.8 Troubleshoot:									-	-	-	-	-	-
26.1.2.8.1 Engine systems		◆							-	-	-	b	-	-
26.1.2.8.2 Electrical systems									-	-	-	-	-	-
26.1.2.8.2.1 Low voltage		◆							-	-	-	b	-	-
26.1.2.8.2.2 High voltage		◆							-	-	-	b	-	-
26.1.3 Equipment operation in extreme conditions									A	-	-	B	-	-
26.1.4 Emergency (battle override) operation									A	-	-	B	-	-
26.1.5 Emergency evacuation procedures (demolition)									A	-	-	B	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level (1) Course	(2) DL	5 Skill Level (1) Course	(2) CDC	7 Skill Level (1) Course	(2) DL
		◆												
26.2 Mobile Aircraft Arresting System (MAAS) TR: TOs 35E8-2-10-3, 35E8-2-5-4, 35E8-2-10-1S-1, 35E8-2-11-1, 35E8-2-11-2; AFPAM 10-219, Vol 3, 4 & 5; AFIs 13-217, 32-1043; AFH 10-222									-	-	-	-	-	-
26.2.1 Components, theory of operation and configuration									B	-	-	B	-	-
26.2.2 Installation planning									-	-	-	-	B	-
26.2.3 Inspection and Maintenance management									-	-	-	A	B	-
26.2.4 Perform unidirectional installation									-	-	-	-	-	-
26.2.4.1 Soil		◆							1b	-	-	c	-	-
26.2.4.2 Concrete		◆							1b	-	-	c	-	-
26.2.4.3 Asphalt over soil									b	-	-	c	-	-
26.2.4.4 Asphalt over concrete									b	-	-	c	-	-
26.2.5 Perform bidirectional installation									-	-	-	-	-	-
26.2.5.1 Soil									b	-	-	c	-	-
26.2.5.2 Concrete									b	-	-	c	-	-
26.2.6 Attach hook cable		◆							1b	-	-	c	-	-
26.2.7 Tension hook cable		◆							2b	-	-	c	-	-
26.2.8 Proof load installation		◆							b	-	-	c	-	-
26.2.9 Reconstitute MAAS									1b	-	-	c	-	-
26.2.10 Perform MAAS periodic inspections and preventive maintenance									-	-	-	-	-	-
26.2.10.1 Daily		◆							b	-	-	c	-	-
26.2.10.2 Weekly		◆							b	-	-	c	-	-
26.2.10.3 Monthly		◆							b	-	-	c	-	-
26.2.10.4 Quarterly		◆							1b	-	-	c	-	-
26.2.10.5 Semi-annual		◆							b	-	-	c	-	-
26.2.10.6 After arrestment		◆							1b	-	-	c	-	-
26.2.11 Troubleshoot:									-	-	-	-	-	-
26.2.11.1 Brake assembly		◆							-	-	-	b	-	-
26.2.11.2 Rewind assembly		◆							-	-	-	b	-	-
26.2.11.3 Hydraulic system		◆							-	-	-	b	-	-
26.2.11.4 Trailer hydraulic system		◆							-	-	-	b	-	-
26.2.12 Replace components:									-	-	-	-	-	-
26.2.12.1 Rewind assembly									-	-	-	b	-	-
26.2.12.2 Hydraulic system									-	-	-	b	-	-
26.2.12.3 Trailer hydraulic system									-	-	-	b	-	-
26.2.13 Determine tape replacement using Regime Chart									a	-	-	b	c	-
26.2.14 Lightweight fairlead beam (LWFB) TR: TO 35E8-2-11-2									-	-	-	-	-	-
26.2.14.1 Installation									-	-	-	-	-	-
26.2.14.1.1 Site selection									B	-	-	B	-	-
26.2.14.1.2 Position		◆							b	-	-	c	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) DL	(1) Course	(2) CDC	(1) Course	(2) DL
		◆												
26.2.14.1.3 Reeve tape									b	-	-	c	-	-
26.2.14.1.4 Anchoring system		◆							b	-	-	c	-	-
26.2.14.1.5 Perform final alignment		◆							b	-	-	c	-	-
26.2.14.2 Perform LWFB periodic inspections:									-	-	-	-	-	-
26.2.14.2.1 Daily									b	-	-	c	-	-
26.2.14.2.2 Monthly									b	-	-	c	-	-
26.2.15 Mobile Runway Edge Sheaves (MRES) TR: TO 35E8-2-3-1									-	-	-	-	-	-
26.2.15.1 Installation									-	-	-	-	-	-
26.2.15.1.1 Soil		◆							b	-	-	c	-	-
26.2.15.1.2 Concrete									b	-	-	c	-	-
26.2.15.1.3 Perform final alignment		◆							b	-	-	c	-	-
26.2.15.2 Perform MRES periodic inspections:									-	-	-	-	-	-
26.2.15.2.1 Daily									b	-	-	c	-	-
26.2.15.2.2 Monthly									b	-	-	c	-	-
26.3 Contingency Planning Factors TR: AFPAM 10-219, Vol 5; AFH 10-222, Vol 1, 2, 5 & 8									-	-	-	-	-	-
26.3.1 Airfield operations									-	-	-	-	B	-
26.3.2 Basic Expeditionary Airfield Resources (BEAR) power generation									-	-	-	A	B	-
26.4 Expedient bed down methods using BEAR assets TR: AFPAM 10-219, Vol 2 & 5									-	-	-	-	-	-
26.4.1 Tent lighting installation TR: AFPAM 10-219, Vol 2									A	-	-	B	-	-
26.4.2 Remote Area Lighting System (RALS) installation TR: AFPAM 10-219, Vol 5; TO 00-105-12									A	-	-	B	-	-
26.4.3 Telescopic floodlight set TR: TO 35F5-5-21-1; AFPAM 10-219, Vol 5; L-6 light set reference									-	-	-	-	-	-
26.4.3.1 Install									1b	-	-	c	-	-
26.4.3.2 Inspect									1b	-	-	c	-	-
26.4.3.3 Operate									1b	-	-	c	-	-
26.4.3.4 Troubleshoot									-	-	-	b	-	-
26.4.3.5 Maintain									-	-	-	-	-	-
26.4.4 Emergency Airfield Lighting System (EALS) TR: AFPAM 10-219, Vol 3, 4 & 5									A	-	-	B	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks			3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)					
	A	B	C	A	B	C	D	E	A		B		C	
	3 Level	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	3 Skill Level		5 Skill Level		7 Skill Level	
									(1) Course	(2) DL	(1) Course	(2) CDC	(1) Course	(2) DL
26.4.5 Electrical distribution system installation TR: TOs 00-105K-2, 35C6-9-1, 35E4-169-1, 40W4-9-1C, 40W4-13-1, 50D-1-3-1; AFPAM 10-219, Vol 2, 3, 4 & 5; AFI 32-1065		◆							-	-	-	-	-	-
26.4.5.1 Primary distribution system									A	-	-	B	-	-
26.4.5.2 Secondary distribution system									A	-	-	B	-	-
26.4.6 Connect generator to Secondary Distribution Center (SDC)									b	-	-	c	-	-
26.5 Initial Deployable Kitchen (IDK) generator									A	-	-	B	-	-
26.6 Chemically Hardened Air Management Plant (CHAMP) generator and transfer panel									A	-	-	B	-	-
26.7 Foreign electrical systems TR: AFIs 32-1062, 32-1065; TOs 00-105A, 35C2-3, 35C6 Series									-	-	-	A	-	-
26.8 Special purpose vehicles/equipment TR: AFIs 10-210, 23-101, 24-301, 91-207; AFD 25-1; AFOSHSTD 91-46; AFPAM 10-219, Vol 4; TA 12; TOs 36A12, 36C12 Series									-	-	-	-	-	-
26.8.1 HMMVW									-	-	-	-	-	-
26.8.2 Front end loader with forklift attachment									-	-	-	-	-	-
26.8.3 Dump truck									-	-	-	-	-	-
26.8.4 Electric line truck									-	-	-	-	-	-

Note: BLK #4: Columns (1) & (2) can be relabeled to meet CF Requirements; i.e., 2-phase 3-skill level course, 5-lvl QTPs.

6. AFQTP Documentation Record, Attachment 3

AFQTP Documentation Record For AFSC 3E0X2						
<ul style="list-style-type: none"> - Download applicable AFQTPs at https://wwwmil.afcesa.af.mil/Directorate/CEO/Training/QTPs/ceof_3e0x2.htm - Trainers/Certifiers enter their name and initials in the identification block at beginning of the STS - Upon administering AFQTPs, enter start date in Column 4 of this record - Upon completion of each unit, document Columns 5, 6, and 7 - Upon completion of applicable CerTests, trainer will place the completion date in Column 8 - Transcribe by entering current date in Columns 5 and 8, Trainees & Trainer's Initials in Columns 6 & 7 <p>NOTE 1: Diamond tasks(♦)are extremely important to the career field. Diamond tasks are the same as core tasks with one exception--equipment shortfalls at most locations have created problems with the actual hands-on certification of these tasks. In instances where required equipment is not available for instruction, completion of the task's AFQTP and passing the corresponding CerTest fulfills the requirement for upgrade training. Hands-on certification shall be accomplished at the first opportunity when equipment is available. In locations where the equipment is available for hands-on certification, CerTest completion is still a mandatory requirement.</p>						
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	♦ *5 LEVEL **7 LEVEL SEE NOTE 1	START DATE	COMPLETION DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS
10.	AFS-SPECIFIC PUBLICATIONS Ref: AFQTP Module 10 – AFS-SPECIFIC PUBLICATIONS					
10.2.	Use technical orders	*				
11.	ELECTRICAL POWER PRODUCTION TOOLS AND TEST EQUIPMENT Ref: AFQTP Module 11 – ELECTRICAL POWER PRODUCTION TOOLS AND TEST EQUIPMENT					
11.4.1.	Multimeter (Use electrical test equipment)	*				
12.	GENERAL POWER PRODUCTION TASKS Ref: AFQTP Module 12 – GENERAL POWER PRODUCTION TASKS					
12.4.2	Troubleshoot (Battery Chargers)	**				
13.	ELECTRICAL FUNDAMENTALS Ref: AFQTP Module 13 – ELECTRICAL FUNDAMENTALS					
13.8	Interpret wiring diagrams	*				

1	2	3	4	5	6	7
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	◆ *5 LEVEL ** 7 LEVEL SEE NOTE 1	START DATE	COMPLETION DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS
14.	GENERATOR SET GROUNDING FUNDAMENTALS Ref: AFQTP Module 14 – GENERATOR SET GROUNDING FUNDAMENTALS					
14.2.	Install equipment grounds	*				
15.	ENGINE FUNDAMENTALS Ref: AFQTP Module 15 – ENGINE FUNDAMENTALS					
15.1.2	Engine Malfunctions (Components and theory of operation, gasoline engines)	*				
15.1.3	Perform gasoline engine tune-up	*				
16.	ENGINE DC ELECTRICAL SYSTEM Ref: AFQTP Module 16 – ENGINE DC ELECTRICAL SYSTEM					
16.2.	Troubleshoot	*				
16.3	Use wiring diagrams	*				
16.5.1.	Battery charging alternator (Replace)	*				
16.5.2	Starter motor (Replace)	*				
16.6.3.	Replace (Batteries)	*				
17.	ENGINE LUBRICATION SYSTEM Ref: AFQTP Module 17 – ENGINE LUBRICATION SYSTEM					
17.4.	Service engine lubrication system	*				

1	2	3	4	5	6	7
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	◆ *5 LEVEL ** 7 LEVEL SEE NOTE 1	START DATE	COMPLETE DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS
18.	FUEL SYSTEMS Ref: AFQTP Module 18 – FUEL SYSTEMS					
18.1.5.	Adjust carburetor (Gasoline)	*				
18.2.2.	Troubleshoot (Diesel)	*				
18.2.4.3.	Filters/strainers (Replace components (Diesel))	*				
19.	ENGINE COOLING SYSTEMS Ref: AFQTP Module 19 – ENGINE COOLING SYSTEMS					
19.2	Troubleshoot	*				
19.4.5	Drive belts (Replace components)	*				
19.5.1	Service	*				
20.	ENGINE GOVERNOR SYSTEMS Ref: AFQTP Module 20 – ENGINE GOVERNOR SYSTEMS					
20.2.2.	Troubleshoot (Electronic governors)	**				
20.2.6.1.	Droop (Adjust (Electronic governors))	*				
20.2.6.2.	Gain (Adjust (Electronic governors))	*				
20.2.6.3.	Idle (Adjust (Electronic governors))	*				
20.2.6.4.	Run (Adjust (Electronic governors))	*				

1	2	3	4	5	6	7
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	◆ *5 LEVEL ** 7 LEVEL SEE NOTE 1	START DATE	COMPLETE DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS
22.	AC GENERATING SYSTEM Ref: AFQTP Module 22 – AC GENERATING SYSTEM					
22.2.2.	Troubleshoot (Controls)	**				
22.3.3.3	Test Diodes	*				
22.3.4.3	Fuses (Replace)	*				
26.	AFSC SPECIFIC CONTINGENCY RESPONSIBILITIES Ref: AFQTP Module 26 – AFSC SPECIFIC CONTINGENCY RESPONSIBILITIES					
26.1.1.2.3.	Configure for proper voltage (200kW or less)	*				
26.1.1.2.4.3	Connect (Cables (200kW or less)	*				
26.1.1.2.5.	Check phase rotation (200kW or less)	*				
26.1.1.3.1.	Pre-operational inspection (Perform (200kW or less)	*				
26.1.1.3.2.	Operation inspection (Perform (200kW or less)	*				
26.1.1.3.3.	Post-operational inspection (Perform (200kW or less)	*				
26.1.1.3.4.	Single unit operation (Perform (200kW or less)	*				
26.1.1.3.5.	Parallel unit operation (Perform (200kW or less)	*				
26.1.1.7.1	KW Load (Calculate)	*				

1	2	3	4	5	6	7
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	◆ *5 LEVEL ** 7 LEVEL SEE NOTE 1	START DATE	COMPLETE DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS
26.1.1.7.3	Facility Power Requirements (Calculate)	*				
26.1.1.7.4	Fuel Requirements (Calculate)	*				
26.1.2.3.2.	Position (Installation MEP-12 Generator)	◆				
26.1.2.3.3.	Ground (Installation MEP-12 Generator)	◆				
26.1.2.6.1.	Pre-operational inspection (Perform, MEP-12 Generator)	◆				
26.1.2.6.2.	Operational inspection (Perform, MEP-12 Generator)	◆				
26.1.2.6.3.	Post-Operational Inspection	◆				
26.1.2.6.4.	Single unit operation (Perform, MEP-12 Generator)	◆				
26.1.2.6.5.	Parallel unit operation (Perform, MEP-12 Generator)	◆				

1	2	3	4	5	6	7	8
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	◆ *5 LEVEL ** 7 LEVEL SEE NOTE 1	START DATE	COMPLETE DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS	Certest COMP DATE
26.	AFSC SPECIFIC CONTINGENCY RESPONSIBILITIES REF: AFQTP MODULE 26 – AFSC SPECIFIC CONTINGENCY RESPONSIBILITIES						
26.1.2.6.6.	Remote operation (Perform, MEP-12 Generator)	◆					
26.1.2.7.1	Mechanical (Perform Scheduled Inspections, MEP-12 Generator)	◆					
26.1.2.7.2	Low Voltage (Perform Scheduled Inspections, MEP-12 Generator)	◆					
26.1.2.7.3	High Voltage (Perform Scheduled Inspections, MEP-12 Generator)	◆					
26.1.2.8.1.	Engine systems (Troubleshoot MEP-12 Generator)	◆					
26.1.2.8.2.1.	Low voltage (Troubleshoot Electrical Systems MEP-12 Generator)	◆					
26.1.2.8.2.2.	High voltage (Troubleshoot Electrical Systems MEP-12 Generator)	◆					
26.2.4.1.	Soil (Perform Unidirectional Installation, MAAS)	◆					
26.2.4.2	Concrete (Perform Unidirectional Installation, MAAS)	◆					
26.2.6.	Attach hook cable (Perform Unidirectional Installation (MAAS))	◆					
26.2.7.	Tension hook cable (Perform Unidirectional Installation (MAAS))	◆					
26.2.8.	Proof load installation (Perform Unidirectional Installation (MAAS))	◆					

1	2	3	4	5	6	7	8
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	◆ *5 LEVEL ** 7 LEVEL SEE NOTE 1	START DATE	COMPLETE DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS	CerTest COMP DATE
26.2.10.1.	Daily (Perform MAAS periodic inspection and preventive maintenance)	◆					
26.2.10.2.	Weekly (Perform MAAS periodic inspection and preventive maintenance)	◆					
26.2.10.3.	Monthly (Perform MAAS periodic inspection and preventive maintenance)	◆					
26.2.10.4.	Quarterly (Perform MAAS periodic inspection and preventive maintenance)	◆					
26.2.10.5.	Semi-annual (Perform MAAS periodic inspection and preventive maintenance)	◆					
26.2.10.6.	After-arrestment (Perform MAAS periodic inspection and preventive maintenance)	◆					
26.2.11.1.	Brake assembly (Troubleshoot MAAS)	◆					
26.2.11.2.	Rewind assembly (Troubleshoot MAAS)	◆					
26.2.11.3.	Hydraulic system (Troubleshoot MAAS)	◆					
26.2.11.4.	Trailer hydraulic (Troubleshoot MAAS)	◆					
26.2.14.1.2.	Position (Installation Light-Weight Fairlead Beam (LWFB) (MAAS))	◆					
26.2.14.1.4	Install LightWeight Fairlead Beam (LWFB) (MAAS)	◆					
26.2.14.1.5.	Perform final alignment (Installation Light-Weight Fairlead Beam (MAAS))	◆					
26.2.15.1.1.	Soil Installation (Mobile Runway Edge Sheaves (MRES), (MAAS))	◆					

1	2	3	4	5	6	7	8
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	◆ *5 LEVEL ** 7 LEVEL SEE NOTE 1	START DATE	COMPLETE DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS	CerTest COMP DATE
26.2.15.1.3.	Perform Final Alignment (Mobile Runway Edge Sheaves (MAAS))	◆					

SECTION B - COURSE OBJECTIVE LIST (COL)

7. Course Objective List. Lists all training course objectives (knowledge and tasks).
(Optional) This area is reserved.

SECTION C - SUPPORT MATERIALS

8. CerTest.

8.1. CerTest is a program that uses computer-based evaluation to ensure skilled craftsmen are available to meet the Air Force's changing needs. It enhances upgrade and qualification training by testing and evaluating an individual's knowledge of the principles and procedures in each specialty.

8.1.1. The program contains tests used evaluate task knowledge received through different media such as paper products (text), videotapes, and computer-based programs.

8.1.2. The CerTest program contains *mandatory* tests, required for upgrade. All *diamond* (♦) coded tasks on the STS have a corresponding *mandatory* test or associated test with the web-based QTP.

8.1.3. CerTest is also a powerful training management tool. It can be used to find the strengths and weaknesses in an individual's training and experience. CerTest automatically records and updates all test results. The training manager can copy records to a disk so that an individual can bring current, accurate training information to a new unit; thereby helping the gaining supervisor evaluate the trainee's knowledge and experience.

8.2. CerTest also enables unit personnel to develop site-specific tests. These custom-made tests standardize testing on tasks unique to a specific duty station and/or assignment. The program contains a graphics library that may be used along with a menu-driven test editor to develop these site-specific tests.

8.3. CerTest also contains *optional* CDC pre-evaluation tools. Volume review exercises are available for progress checks after each volume is completed. After all volumes are completed in a set, the trainee may take the course review exercise before taking the final End-of-Course exam at the base training office. Commanders are encouraged to integrate these tools in their unit's OJT program.

8.4. CerTest has been adopted as the Air Force platform for future electronic CDC testing. The Air Force Institute for Distributive Learning (AFIADL) began using CerTest on 1 June 2000. Currently, all CE AFSs are allowed to use AFIADL's CerTest on installations where base Test Control Facilities (TCFs) are equipped. See your UETM for further information.

8.5. The *mandatory* CerTests for each AFSC are identified, by number, with their corresponding AFQTP on the 3E0X2 AFQTP Documentation Record.

8.6. For a complete list of up-to-date AFQTPs applicable to the 3E0X2 AFSC see our web page at https://wwwmil.afcesa.af.mil/Directorate/CEO/Training/QTPs/ceof_3e0x2.htm

SECTION D - TRAINING COURSE INDEX

9. Purpose. This section of the CFETP identifies training courses available for the specialty. Refer to the Education and Training Course Announcements (ETCA) web site, <https://etca.randolph.af.mil/> for complete information on Air Force resident and MTT courses.

10. Air Force Resident/Mobile Training Team (MTT) Courses.

Course Number	Title	Developer
J3ABR3E032 00AB	Electrical Power Production Apprentice	366 TRS
J3AZR3E072 00BA	Bare Base Power Generation	366 TRS
J3AZR3E072 00AA	Power Generation Planning, Operations and Maintenance	366 TRS
J3AZR3E072 00TA	Troubleshooting Electrical Power Equip	366 TRS
J7AZT3E052 00AA	Aircraft Arresting Systems BAK-9/BAK-12 (MTT)	366 TRS
J7AZT3E052 00HA	Hook Cable Support BAK-14 (MTT)	366 TRS
J7AZT3E052 00MB	Mobile Aircraft Arresting Systems (MAAS) (MTT)	366 TRS

11. Air Force Institute for Advanced Distributed Learning (AFIADL) Courses.

Course Number	Title	Date
CDC 3E052C	Electrical Power Production Journeyman	1 Jun 08
CDC 3E052D	Electrical Power Production Journeyman	1 Jun 08

12. Exportable Courses/Information.

Distance Learning (DL)	Course Title	Developer
Three-Level STS Items 1 thru 6	Civil Engineer 3-Level Common Core	Contractor
Seven-Level STS Items 1 thru 6	Civil Engineer 7-Level Common Core	Contractor

13. Courses Under Development/Revision

Course Number	Course Title	Developer
J3AZR3E052 00CA (Replaces J3AZR3E072 00BA Bare Base Power Generation (Diesel))	Contingency Power Generation	366 TRS
J3AZR3E052 00TA (Replaces J3AZR3E072 00TA Troubleshooting Electrical Power Generation Equipment)	Troubleshooting Electrical Power Generating Equipment	366 TRS
J7AZT3E052 00AB (Replaces J7AZT3E052 00AA Aircraft Arresting Systems/BAK-9/BAK-12)	Aircraft Arresting Systems BAK-12	366 TRS
J7AZT3E052 00HB (Replaces J7AZT3E052 00HA Hook Cable Support System, BAK-14)	Hook Cable Support System, BAK-14	366 TRS

SECTION E – MAJCOM-UNIQUE REQUIREMENTS

- 14. There are currently no MAJCOM-unique requirements. This area is reserved.**

SECTION F - HOME STATION TRAINING

15. Purpose. The purpose of this section is to identify the tasks, training references, and training sources available in support of contingency/wartime training. Prime BEEF forces will train to meet the full range of tasks expected in the contingency environment. Training ranges from knowledge-type training conducted in a classroom (CAT I), to task-oriented hands-on (CAT II) training conducted in the field. These training requirements, frequencies, and sources are listed in AFI 10-210, Prime Base Emergency Engineer Force (BEEF) Program.

15.1. Home Station Training (HST). HST is training that is conducted at the individual's home station for contingency operations. The Civil Engineer Commander ensures training is provided and documented and arranges for subject matter experts to conduct training as required. Home Station training requirements fall into two categories, CAT I and CAT II.

15.1.1. Category I (CAT I) Training. Personnel assigned to base level Civil Engineer units will receive initial and refresher training in all CAT I (knowledge-based) topics as shown in AFI 10-210, Chapter 4, Attachment 2. Units will use Readiness Training Packages (RTPs), Qualification Training Packages (QTPs), other multimedia training packages, videos, and AF CE standardized lesson plans to present the material. MAJCOMs may develop and require other training materials to accomplish knowledge-based training.

15.1.1.1. Prime BEEF Orientation/General Contingency. Upon assignment to the unit, all military and emergency-essential civilian employees will be trained on the unit's Prime BEEF and Emergency Management missions. The training will emphasize the individual's role and how he or she fits into the program. It will also include an overview of Civil Engineer Doctrine and explain the organization, training, equipment, operating concepts, and contingency missions pertaining to the unit.

15.1.1.2. General Contingency Responsibilities CD-ROM (GCRCD). Personnel may receive annual credit for the applicable CAT I training through completion of one of two available GCRCDs (one for 3-level civil engineers; the second for all other personnel). The 3-level product is a detailed version specifically designed for use as initial CAT I training. Use of this product has become critical in light of recent reductions in technical Prime BEEF training and education. All Airmen should complete this course within 90 days upon arrival at their first duty station (6 months for ARC members). A second GCRCD product is available as an optional source for attaining recurring CAT I training for those tasks identified in AFI 10-210, Attachment 2. Duplication of both CDs is strongly encouraged. All courses on CD-ROM are located on the AFCESA Virtual Learning Center.

https://afcesa.csd.disa.mil/kc/login/login.asp?kc_ident=kc0005

15.1.2. Category II (CAT II) Training. CAT II training is primarily hands-on training as outlined in AFI 10-210, Chapter 4, Attachment 3. Units must make every effort to incorporate realism into their respective CAT II training programs. Field gear (to include primary weapons) will be used during training requirements such as, personal/work party security, convoy operations, defensive fighting positions, etc.

15.1.2.1. Combat Skills Training (CST). CST must be institutionalized as an integral part of any CAT II HST program. Lessons learned from operations such as IRAQI FREEDOM have taught us the importance of maintaining a higher level of combat readiness. Although the inclusion of combat skills-focused training into HST does not fully prepare CE personnel to work in a high threat combat environment, the steps taken to enhance CAT II training will help elevate units to a readiness level capable of supporting safe and effective operations in low to medium risk combat environments.

15.1.2.2. Mission Essential Equipment Training (MEETS). Wartime or contingency environments often involve the use of specialized and unique mission-essential equipment the Civil Engineers do not use in their day-to-day operations. Due to the cost and complexity, mission essential contingency equipment and trainer expertise are not commonly found at CONUS installations. Personnel must be hands-on certified and the certification documented in their CFETP. AFI 10-210 Tables 4.1- 4.6 identify minimum personnel to be trained, positions by specialty, frequencies and locations of training sites. Inadequate training on these key equipment items can negatively impact Air Force contingency operations.

15.1.3. Category III (CAT III) Training. Team Training Venues

15.1.3.1. Silver Flag Exercise Sites (CAT III). Silver Flag Exercise Sites are located at Tyndall AFB, FL; Ramstein AB, Germany; and Kadena AB, Japan and conduct CAT III training with their major focus on students being able to perform critical contingency task in a team environment. The training focuses on bare base beddown and sustainment operations using hands-on training with BEAR equipment in a realistic beddown environment. Where possible, combat skills training has been added to the curriculum to ensure realism and help fortify combat skills mentality amongst teams. All CE personnel who fill Unit Type Code (UTC) positions will receive team training at Silver Flag Exercise Sites with the exception of members on headquarters staff augmentation UTCs, pavement evaluation UTCs, and generator repair and maintenance UTCs.

15.2. Training References.

15.2.1. AFI 10-210, Prime Base Engineer Emergency Force (BEEF) Program.

Chapter four of AFI 10-210 identifies the Prime BEEF recurring training requirements. You can review this document by going to the Air Force publications web site. Attachment 2 to the AFI is a list of HST CAT I training requirements and Attachment 3 lists CAT II training requirements.

15.2.2. Air Force Education and Training Course Announcements (ETCA).

The ETCA is located at the following URL: <https://etca.randolph.af.mil>

It lists additional training/educational opportunities available for civil engineer personnel. This catalog contains information on formal education and training courses. The catalog is continuously updated by the formal technical school Training Managers when anything in the ETCA changes.

15.2.3. Readiness Training Package (RTP).

RTPs are lesson plans for HST lessons. RTPs are intended for those personnel who teach any area of HST. The index and RTPs are located on the AFCESA/CEX web page. The URL for this information is <https://wwwmil.afcesa.af.mil/Directorate/CEX/CEXX/ContingencyTrng/default.html>

15.2.4. AFCESA/CEX. Maintains a comprehensive listing of audiovisual products that support the contingency training program. To view this listing as well as gain information on how to order specific audiovisual products, please consult the AFCESA Contingency Support page, see URL above.